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1920

Griffith AND Turner Co.

ESTABLISHED
1860
CATALOGUE
No. 33

FARM AND GARDEN

SUPPLIES

GENERAL OFFICES, 205-215 N. PACA ST.

BRANCH HOUSE, 366 N. GAY ST.

BALTIMORE, MD.

Prospective Customers who are not rated in the Commercial agencies will save time in having their goods shipped by accompanying their Orders either with the Cash or satisfactory references. Baltimore references preferred.

NOTICE.—We make a specialty of quoting on complete outfits SEND FOR PRICES.

FILLING ORDERS.—Every order is filled and forwarded as promptly as possible, but if not duly received, please notify us and we will make every effort to trace it without delay. Do not fail to sign your name and give full address.

PACKING AND SHIPPING.—We make no charge for boxes or packing of retail orders, and deliver all goods to any railroad or steamboat free of charge. We charge for cotton bags as follows: Peck and half bushel, cents each; 1 bushel, cents each; 2 bushels, cents each.

HOW TO REMIT.—Remittances should be made by draft, Express Money Order, P. O. Money Order or Registered Letter.

We deliver by **PARCEL POST FREE** to any Postoffice in the United States all cash orders for Flower and Garden Seeds at Catalog prices, except Peas, Beans, Corn and Field Seeds. No seed delivered free unless order is accompanied with the cash. For postage on Peas, Beans, Corn, Field Seeds and All Merchandise, consult tab on opposite page.

ON EVERY ORDER be sure to **SIGN YOUR NAME** and give your address **PLAINLY**, as we frequently receive orders lacking either or both; also give full shipping instructions. State if by freight or express and give route. This saves delay.

PRICES TO MARKET GARDENERS.—Market gardeners, and all purchasers of Seeds in large quantities, should submit us a list of their wants and we will name them special prices.

TIME FOR SOWING IN THE OPEN GROUND.

THESE DIRECTIONS apply to the vicinity of Baltimore and Philadelphia. South of this they should be sown earlier, and North later.

BEANS.—From 1st of May until August.

BEETS.—Soon as ground can be worked in spring.

CABBAGE.—For early use, sow in hot bed in February and transplant in April to open ground; for late use, sow in May or June.

CAULIFLOWER.—Sow about the same time as Cabbage. For late crop sow in June, and they will head up in cool weather, and escape injury from the heat.

CARROT.—For early, sow from 1st of April to middle of May, and for late crop in June or July.

CELERI.—Sow as soon as the ground is open in spring, and transplant in July.

CUCUMBER.—Sow about 1st of May for early, and for pickling, in July.

LETUCE.—Sow as soon as ground can be worked in spring, and at intervals as desired.

MELONS.—Sow in May and June.

ONIONS.—Sow early as possible in spring.

PARSNIP.—Soon as ground can be worked.

PEAS.—Sow in March, and at intervals through the season, as desired.

PUMPKIN.—Plant in May or June.

RADISH.—Soon as ground is ready, and all through the season, at intervals.

SQUASH.—Soon as ground is warm.

TOMATO.—Sow in hot bed in March, and transplant about middle of May.

TURNIP.—For early use, in April; for main crop, July and August.

WEIGHT OF AGRICULTURAL SEEDS, PER BUSHEL, AND QUANTITY USUALLY SOWN PER ACRE.

Weight per Bushel.	Pounds per Acre.
14 lbs. Awnless Brome.....	35 to 40 lbs.
60 " Aisks, alone	6 "
60 " Alfalfa or Lucerne.....	20 "
48 " Barley, broadcast.....	2 bus.
48 " Broom Corn, in hills.....	6 to 8 qts.
48 " Buckwheat, broadcast.....	1 bus.
21 " Crested Dog's Tail.....	25 lbs.
20 " Creeping Bent	50 "
60 " Crimson Clover	15 to 20 "
56 " Corn, for soiling.....	1 to 2 bus.
24 " English Rye or Per- ennial Rye	50 lbs.
20 " Evergreen Lawn	3 to 4 bus.
56 " Flax, for seed.....	1 "
56 " Flax, for fiber.....	2 to 3 "
56 " Field Corn, in hills.....	4 qts.
50 " German Millet	50 lbs.
48 " Hungarian Millet	48 "
44 " Hemp	22 "
20 " Italian Rye	50 "
14 " Kentucky Blue	38 "
22 " Meadow Fescue	50 "
7 " Meadow Foxtail	30 "
14 " Orchard Grass	42 "
32 " Oats, broadcast	2 to 2½ bus.
10 " Red Top, chaff .....	.40 to 50 lbs.
14 " Red Top, unhulled	30 to 40 "
32 " Red Top, fancy	6 to 8 "
60 " Red Clover	15 "
56 " Rye, broadcast	1 bus.
12 " Sheep Fescue	30 lbs.
48 " Sorghum, drills.....	4 qts.
48 " Sorghum, broadcast	8 "
10 " Tall Meadow Oat.....	50 lbs.
45 " Timothy, alone	1/4 bus.
" " " with other grasses	8 lbs.
" " Together for an acre	
" " Red Clover	8 "
" " Timothy	10 "
" " Red Top	14 "

WEIGHT OF AGRICULTURAL SEEDS, QUANTITY, ETC.—Continued.

Weight per Bushel.	Pounds per Acre.
60 " Teosinte, in hills.....	1 to 3 lbs.
14 " Vetches, broadcast	1 bus.
60 " Wood Meadow	30 lbs.
60 " White Clover, alone	6 "
.. " White Clover, with other grasses	3 "
60 " Wheat, broadcast	1½ to 2 bus.
.. " Wheat, in drills.....	1½ to 2 "

VEGETABLE SEED TABLE

THE QUANTITY OF SEED USUALLY SOWN TO AN ACRE.

Asparagus	5 lbs.
Beans, dwarf in drills	½ to ¼ bus.
Beans, pole, in hills	8 to 10 qts.
Beet, in drills	4 to 6 lbs.
Cabbage, in beds, to transplant	¼ lb.
Carrot, in drills	2 to 3 lbs.
Celery, to transplant	½ lb.
Corn, in hills (sugar)	4 qts.
Kale	4 to 6 lbs.
Melon, musk	½ to 2 "
Melon, water	2 to 3 "
Mustard, broadcast	12 to 16 "
Mangelwurzel	4 to 6 "
Onions, in drills to make large onions	6 to 8 "
Onion Seeds, for small sets	40 to 60 "
Parsnips, in drills	4 to 6 "
Peas, early, in drills	1¼ bus.
Peas, Marrowfat, in drills	1¼ "
Peas, broadcast	2 to 3 "
Potato, cut tubers in drills	8 to 11 "
Radish, in drills	6 to 8 lbs.
Radish, broadcast	10 "
Salsify, in drills	6 to 8 "
Spinach, in drills	12 to 20 "
Squash, bush varieties, in hills	4 to 6 "
Squash, running varieties, in hills	3 to 4 "
Turnip, in drills	1 lb.
Turnip, broadcast	2 lbs.
Tomato, to transplant	¼ lb.

TO COUNTRY MERCHANTS.

WE PUT UP VEGETABLE SEEDS in papers for the Country Trade in quantities to suit purchasers. Our seeds are select and tested, and give satisfaction wherever used.

Beans, Peas, Corn, etc., in bulk, at lowest wholesale rates.

Write for special quotations in quantities.

Should you have placed your order for small papers for this year, we will be pleased to fill any shortage you may have, and solicit your patronage for another season.

HINTS ON TRANSPLANTING TREES.

The proper season for transplanting fruit trees is during the months of February, March and April in the spring, and October, November and December in the autumn.

PROPER AGE AND SIZE OF TREES FOR TRANSPLANTING.

Experience has taught observing planters that a small, young tree, set at the same time, will in a few years overtake and pass a large one, and continue more vigorous and productive. Large trees are necessarily or unavoidably more injured in digging than small ones. The latter can be moved with their system or roots almost entire.

NUMBER OF TREES AND PLANTS TO AN ACRE.

3 ft. each way	4840	12 ft. each way	302	33 ft. each way	40
4 ft. each way	2722	15 ft. each way	193	35 ft. each way	35
5 ft. each way	1742	18 ft. each way	134	40 ft. each way	27
6 ft. each way	1210	20 ft. each way	108	45 ft. each way	21
8 ft. each way	680	25 ft. each way	69	50 ft. each way	17
10 ft. each way	435	30 ft. each way	48		

DISTANCE FOR PLANTING.

Std. Apples	33 to 40	feet each way.
Std. Pear and large-growing Cherry	20	" "
Duke and Morello Cherry	20	" "
Std. Plum, Apricot and Nectarine	15 to 20	" "
Peach	20	" "
Quince	12	" "
Dwarf Pear	10	" "
Currant, Gooseberry, Raspberry and Black- berry	4 to 5	" "
Grapes	6 to 10	" "

QUANTITY OF SEEDS REQUIRED FOR A GIVEN NUMBER OF PLANTS, NUMBER OF HILLS, OR LENGTH OF DRILLS.

Asparagus	1 oz. to 50 ft. drill
Beet	1 oz. to 50 ft. drill
Celery	1 oz. to 100 ft. drill
Carrot	1 oz. to 100 ft. drill
Endive	1 oz. to 150 ft. drill
Egg Plant	1 oz. to 300 ft. drill
Lettuce	1 oz. to 150 ft. drill
Okra	4 oz. to 100 ft. drill
Onion	1 oz. to 100 ft. drill
Onion Sets, small	1 qt. to 100 ft. drill
Parsley	1 oz. to 150 ft. drill
Parsnip	3 oz. to 100 ft. drill
Radish	2 oz. to 100 ft. drill
Salsify	1 oz. to 70 ft. drill
Spinach	2 oz. to 100 ft. drill
Turnip	1 oz. to 150 ft. drill
Peas	1 qt. to 100 ft. drill
Dwarf Beans	1 qt. to 100 ft. drill
Leek	1 oz. to 100 ft. drill
Pole Beans	1 qt. to 150 hills
Corn	1 qt. to 200 hills
Cucumber	1 oz. to 50 hills
Watermelon	1 oz. to 30 hills
Musk melon	1 oz. to 60 hills
Pumpkin	1 oz. to 40 hills
Early Squash	1 oz. to 50 hills
Marrow Squash	1 oz. to 16 hills
Cabbage, 1 oz. seed will produce 2000 plants	
Caulif'r, 1 oz. seed will produce 2000 plants	
Celery, 1 oz. seed will produce 3000 plants	
Egg Plant, 1 oz. seed will produce 1000 plants	
Lettuce, 1 oz. seed will produce 3000 plants	
Pepper, 1 oz. seed will produce 1000 plants	
Tomato, 1 oz. seed will produce 1500 plants	

ORDER SHEET

GRIFFITH & TURNER CO.

205-215 N. PACA STREET
Branch House, 366 N. GAY St.
BALTIMORE, MD., U. S. A.

HOW TO SEND MONEY: By Mail, Express, P. O. Money Order, Registered Letter or Bank Draft.
For Small amounts send Postage Stamps.

for small amounts from a single firm, we deliver by Royal Mail free to any Post Office in Great Britain.

We deliver by Parcel Post free to any Post-office in the United States, all cash orders for Flower and Garden Seed at Catalog Price, except Peas, Beans, Corn and Field Seeds. No seed delivered free unless the order is accompanied with the cash. For Peas, Beans, Corn and Field Seeds, add to Catalog Price 6 cents a pint and 8 cents a quart. For each additional quart add at the rate of 2 cents a quart, for distances not over 150 miles from Baltimore. For other seed and merchandise rate consult first page in Catalog.

VERY IMPORTANT. No difference how often you have written us, always give your full address, and write your Name, Post-office, County and State very plainly. We frequently get orders without address or signature.

GRIFFITH & TURNER CO. gives no warranty, expressed or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs or plants they send out, and they will not be in any way responsible for the crop. If purchaser does not accept goods on these terms, they are at once to be returned. All claims must be made within five (5) days after receipt of goods.

ORDER FLOWER SEEDS BY NUMBERS. PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

AMOUNT ENCLOSED

Forward by { State on this line whether wanted
by Mail, Express or Freight. } **Post-office Order . . \$.**

Your Name Express Money Order

Post-office **Route No.** **Bank Draft . . .**

County..... **State**..... **Cash, Notes and Silver**

Express or
Flight Office Date Postage Stamps . . .

Freight Office) _____ **Date** _____ (2c. stamps preferred)

1920 GARDEN CALENDAR

JANUARY

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Draw a diagram of the garden. Locate the crops which take the most room (corn, potatoes, vines of the cucumber family), then locate the other crops, grouping them as follows: Peas, potatoes, beans, asparagus, rhubarb, herbs; parsnips, turnips, salsify; beets, carrots, onions; cabbage, cauliflower; okra, tomatoes, egg plant, peppers; spinach, Swiss chard, radish, salad plants. Vegetables should be planted in rows. Plan a hardy border. (See September.) **Sow Indoors or in Hotbed January 15:** Fox-glove, pansy, Iceland poppy.

Order Seeds. Quantity of Seed for a Family of Eight. Artichoke. Brussels sprouts, carrot, turnip, radish, 1 oz.; onion, spinach, okra, 2 oz.; cauliflower, egg plant, peppers, 2 pkgs.; cucumbers, 25 hills, 1 oz.; squash, 20 hills, 1 oz.; string beans, 2 qts.; lima beans, 1 qt.; peas, 4 qts.; corn, 3 pts. (plantings); lettuce, 1 oz. **Buy Garden Tools:** Wheelbarrow, roller, watering-can, sprayer, spade, fork, wheel hoe, common hoe, weeder, rake, scythe, sickle, trowel.

When to Sow: Early crops between March 15 and May 1. Main crops about May 5. Cover seeds twice or three times their thickness. Distances: Drills from 1 to 2 feet apart; corn, 3 feet; vines of the cucumber family, 4 feet; tomatoes, 3 feet. **Sow Out of Doors Between March 15 and April 1:** Beets, cabbage, carrots, kohlrabi, lettuce, onions, parsley, parsnips, radish, salsify, spinach, turnips, sweet-peas (height, 3 feet, many colors). **Sow Indoors March 1 or in Hotbed:** Artichoke, cabbage, endive, egg plant, lettuce, peppers, tomato. **Sow Indoors March 1 or in Hotbed:** Sweet-alyssum, balsam, calendula, coreopsis, nasturtium, petunia, sweet-william, zinnia.

Sow Out of Doors April 15: Beets, cabbages, carrots, Swiss chard, celery, corn salad, garden cress, endive, lettuce, okra, onion, parsley, parsnips, peas, radish, salsify, spinach, sage, thyme, turnip. **Sow Out of Doors April 15:** Sweet-alyssum, calendula, candytuft, corn-flowers, carnation, forget-me-not, larkspur, marigold, mignonette, Iceland poppy, snapdragon, sweet-william, zinnia. Set out roots of dahlias, canna, gladiolas, elephant ears, tuber roses and plants of hardy chrysanthemums.

Sow Out of Doors May 15: Brussels sprouts, cauliflower, beets, beans, cabbage, carrots, corn salad, chicory, cucumbers, endive, tomatoes, lettuce, lime beans, muskmelon, peas, peppers, potatoes, pumpkin, radish, sweet corn, Swiss chard, spinach, squash, sage, watermelon. **Sow Out of Doors May 15:** China aster, balsam, coreopsis, cosmos, foxglove, morning-glory, nasturtium, petunia, Phlox Drummondii, sunflower. Vegetables and flowers should be transplanted from hotbed to garden about May 10. Flowering shrubs should be pruned immediately after they have blossomed. Fruit trees should be sprayed when the blossoms fall.

Sow Early in June: Beans, beets, cucumbers, lettuce, peas, radish, sweet corn. Ten-week Stock, pansy. Roses should be grown on a southern exposure. The soil should be a rich loam. Set out ever-blooming roses the middle of April; Hybrid, Perpetual and Hardy Roses the middle of October. Rose bushes should be set out 2 feet apart, sprayed in April and May, and pruned in March. The rose-bed should be well covered the last of November, and uncovered as soon as danger of frost is past. From the numerous varieties on the market, the following roses are selected: Pink Mamam Cochet, American Beauty, My Maryland, Rhea Reid, Killarney, Helen Gould, Ulrich Brunner, Vicks' Caprice, Meteor, Magna Charta, Paul Neyron, La France, Kaiserin, Augusta Victoria, Bridesmaid, Baby Rambler (climber), Tausendschön (climber), Dorothy Perkins (climber), Empress of China (climber), Philadelphia (climber), Crimson Rambler (climber).

First Week in July: Beans, carrots, lettuce, radish, sweet corn, turnips. **Bordeaux Mixture** is excellent for all kinds of blight. **Arsenate of Lead** will destroy insects that chew. **Directions:** 2 to 3 pounds to 50 gallons of water. **Lemon Oil Co.'s Standard Insecticide** will kill plant lice of every description.

August 1, last planting of beans and peas. **Buy a High-grade Complete Fertilizer** for general use if unable to compound your own fertilizers. Quantity, 500 lbs. to the acre, or 1 oz. to the square yard. Where a rich soil is required, 1250 lbs. to the acre, or 4 oz. to the square yard. In artificial fertilizers there are no weed seeds. **General Hints:** **Bone-Meal** is excellent for lawn, garden, orchard; **Wood Ashes** for lawn (sparingly), garden, orchard; **Air-Slacked Lime** for heavy, damp soil; **Cottonseed Meal** for lawn (scatter early in April); **Muriate of Potash** for apple trees and peach trees (2 to 3 lbs. for a full-grown tree). **Bone-Meal and Nitrate of Soda** in equal parts for asparagus. **In the Flower Garden** in the spring a handful of bone-meal may be worked into the soil about a plant with marked results. In midsummer, if flowers are few, rake in some nitrate of soda and a little bone-meal. **Liquid Manure** is a good fertilizer for roses.

Set Out Bulbs Early in Fall: Phlox (perennial), peonies. Plant spring-flowering bulbs: Crocus, daffodils, lily of the valley, narcissus, snowdrops, tulips, hyacinths. Spring-flowering bulbs should be planted about 4 inches deep. Plant bulbs of German Iris and Japanese Iris. **In the Window Garden:** Roman hyacinths, Chinese sacred lilies, narcissus and crocuses can be grown in sand and water.

Some Flowering Shrubs for the Home Garden: Forsythia, hydrangea paniculata grandiflora, Japanese snowball, Japanese quince, lilac, magnolia, rhododendron maximum, Rose of Sharon, Philadelphus syringa grandiflorus, Spiraea, Weigelia. **Vines:** Boston ivy, crimson rambler, clematis paniculata (also large-blossomed purple and white varieties), English ivy, honeysuckle, hops, Japanese gourd (annual), passion flower (annual), trumpet creeper, Virginia creeper, wistaria.

Books for the Farmer and Gardener: "Farmers' Cyclopedia of Agriculture," by Wilcox & Smith; "Ten Acres Enough"; "American Fruit Culturist," by J. J. Thomas; "Farm Grasses of the United States," by J. J. Spillman; "Making the Farm Pay," by C. C. Bowsfield; "Success with Hens"; "Success with Hogs"; "Vegetable Forcing," by R. L. Watts; "Profitable Dairying," by C. L. Peck; "Diseases of Swine," by R. A. Craig; "Vegetable Gardening," by C. L. Peck; "Insects and Insecticides," by Professor Weed; "Fertilizers and Crops," by Dr. Lucius L. Van Slyke; "Weeds of the Farm and Garden," by L. H. Pimmel.

JULY

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

AUGUST

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SEPTEMBER

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

OCTOBER

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

NOVEMBER

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

DECEMBER

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Griffith & Turner Co.'s

ANNUAL

1920--CATALOGUE--1920

BEST GOODS

No. 33

LOW PRICES

PARCEL POST RATES.

Weight in Pounds.	Distance not over 150 miles,	Over 150 and not over 300 miles,	Over 300 and not over 600 miles,	Over 600 and not over 1000 miles,	Over 1000 and not over 1400 miles.
1	\$.05	\$.06	\$.07	\$.08	\$.09
2	.06	.08	.11	.14	.17
3	.07	.10	.15	.20	.25
4	.08	.12	.19	.26	.33
5	.09	.14	.23	.32	.41
6	.10	.16	.27	.38	.49
7	.11	.18	.31	.44	.57
8	.12	.20	.35	.50	.65
9	.13	.22	.39	.56	.73
10	.14	.24	.43	.62	.81
11	.15	.26	.47	.68	.89
12	.16	.28	.51	.74	.97
13	.17	.30	.55	.80	1.05
14	.18	.32	.59	.86	1.13
15	.19	.34	.63	.92	1.21
16	.20	.36	.67	.98	1.29
17	.21	.38	.71	1.04	1.37
18	.22	.40	.75	1.10	1.45
19	.23	.42	.79	1.16	1.53
20	.24	.44	.83	1.22	1.61
21	.25	.46	.87	1.28	1.69
22	.26	.48	.91	1.34	1.77
23	.27	.50	.95	1.40	1.85
24	.28	.52	.99	1.46	1.93
25	.29	.54	1.03	1.52	2.01
26	.30	.56	1.07	1.58	2.09
27	.31	.58	1.11	1.64	2.17
28	.32	.60	1.15	1.70	2.25
29	.33	.62	1.19	1.76	2.33
30	.34	.64	1.23	1.82	2.41
31	.35	.66	1.27	1.88	2.49
32	.36	.68	1.31	1.94	2.57
33	.37	.70	1.35	2.00	2.65
34	.38	.72	1.39	2.06	2.73
35	.39	.74	1.43	2.12	2.81
36	.40	.76	1.47	2.18	2.89
37	.41	.78	1.51	2.24	2.97
38	.42	.80	1.55	2.30	3.05
39	.43	.82	1.59	2.36	3.13
40	.44	.84	1.63	2.42	3.21
41	.45	.86	1.67	2.48	3.29
42	.46	.88	1.71	2.54	3.37
43	.47	.90	1.75	2.60	3.45
44	.48	.92	1.79	2.66	3.53
45	.49	.94	1.83	2.72	3.61
46	.50	.96	1.87	2.78	3.69
47	.51	.98	1.91	2.84	3.77
48	.52	1.00	1.95	2.90	3.85
49	.53	1.02	1.99	2.96	3.93
50	.54	1.04	2.03	3.02	4.01
51	.55	1.06			
52	.56	1.08			
53	.57	1.10			
54	.58	1.12			
55	.59	1.14			
56	.60	1.16			
57	.61	1.18			
58	.62	1.20			
59	.63	1.22			
60	.64	1.24			
61	.65	1.26			
62	.66	1.28			
63	.67	1.30			
64	.68	1.32			
65	.69	1.34			
66	.70	1.36			
67	.71	1.38			
68	.72	1.40			
69	.73	1.42			
70	.74	1.44			

OUR SEEDS are the BEST that can be obtained anywhere, because we are as careful in our selection as it is possible for anyone to be, and are constantly on the lookout for the best of everything, but will not put on the market anything until it has been thoroughly tried and proved.

No matter what others may ask for their seeds, better quality cannot be obtained anywhere, as our constantly and rapidly increasing trade does and will testify.

Our Seeds are ALL TESTED thoroughly before being placed on the market.

If for any reason you change your post-office address, please advise us, giving your old address as well as your new one, stating which is the old and new one.

HOW TO ORDER TO AVOID DELAY.—All orders from unknown correspondents should be accompanied with the cash. Money can be safely sent by check, post-office order, express money order, registered letter or by express, or postage stamps for small amounts. We prepay postage on all orders of Vegetable and Flower Seeds, by the packet, ounce, quarter pound and pound, except Beans, Peas and Corn, at prices named in this Catalogue, when orders are accompanied with the cash. On Beans, Peas, Corn, and other merchandise use Parcel Post Table. SEEDS BY EXPRESS are far more satisfactory than Parcel Post, because of quicker transit and more careful handling. To points beyond the Third Zone it is cheaper to ship by Express than by Parcel Post.

For other seed and merchandise rate, consult table on this page. POISONS CANNOT BE SENT BY MAIL.

By writing out your order on the Order Sheet sent with each Catalogue you will greatly facilitate our work. Extra Order Sheets sent on application. Be sure to sign your name in full, giving post-office and shipping point. If you have rural delivery, give name and number of route. If you want goods shipped by boat or railroad, state which you prefer, and what line to send by.

GRIFFITH & TURNER CO. give no warranty, expressed or implied, as to description, quality, productiveness, or any other matter, of any Seeds, Bulbs or Plants they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.

DELIVERY BY PARCEL POST

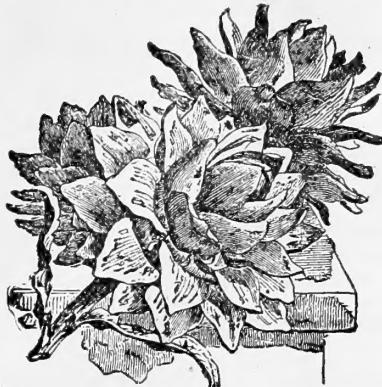
We deliver by PARCEL POST FREE to any post-office in the United States all Cash Orders for Flower and Garden Seed at Catalogue Prices, except Peas, Beans, Corn and Field Seeds. No Seed delivered free unless order is accompanied with the cash. For Peas, Beans, Corn, Field Seeds, and Merchandise rate consult the table which appears on this page.

NOTES ABOUT PARCEL POST.—Poisons and Insecticides Cannot be Sent by Mail. Weight Limit in First and Second Zones, 70 lbs.; in Other Zones, 50 lbs. Bulk Limit (Measurement Around Package Both Ways) in all Zones, 84 Inches. Liquids and Goods Packed in Glass Should be Sent by Express.

RELIABLE VEGETABLE SEEDS OF QUALITY

UNITED STATES FOOD ADMINISTRATION LICENSE
NO. G 22972.

ARTICHOKESE



Globe or French Artichoke.

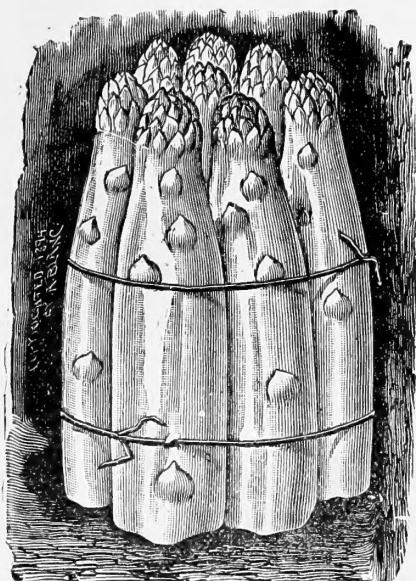
This is a very nice vegetable to eat. Some prefer it cooked like asparagus—that is, take the flower head before it begins to open and cook much the same way.

Sow in March in hotbed and when danger of frost is over transplant in very rich, well-drained soil in rows four feet apart and two feet apart in the row. The plants can be raised in seed beds out of doors, but in that case will not be likely to produce heads the first year. Late in the fall cut off the old tops and thoroughly protect the crowns with leaves or straw to prevent severe freezing.

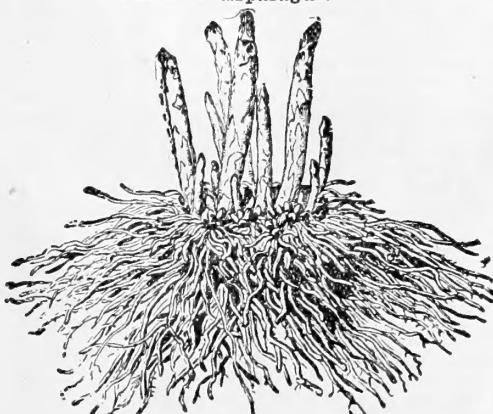
The second year thin the starting shoots to three of the best, which will commence to form heads about June 1st. The plants may also be blanched by cutting back the stems close to the ground in June, the rapidly growing shoots which then start up may be tied and blanched like celery. As artichoke plants do not yield satisfactorily after three or four years, it is best to start a new plantation every three years.

LARGE GREEN GLOBE.—A favorite French vegetable of medium height with rather deep green leaves. The buds or flower-heads are green, nearly round or somewhat elongated. **Pkt., 5c. Oz., 40c.**

JERUSALEM ARTICHOKE ROOTS.—Used for table and stock feeding. The tubers roasted or boiled and served with butter, well seasoned, make a dish, some think, greater than Potatoes. However, their greatest value is for hogs. Plant and cultivate like potatoes. **Peck, 75c. Bushel, \$3.00.**



Palmetto Asparagus.



Asparagus Roots.

ASPARAGUS

This is one of the earliest spring vegetables, and should be in universal use. Many persons think it is difficult to grow, but we consider this a mistake, and believe it can be produced as cheaply and easily as any on the list. Sow the seed in the seed bed late in the fall or the early spring, as soon as the ground can be worked, in drills one foot apart, covering the seed about one inch deep. When the plants are four or five inches high, great care should be taken to keep the bed free of weeds. One ounce of seed will sow forty feet of row.

PALMETTO.—A very early maturing variety, producing an abundance of very large, deep green shoots.

Pkt., 5c. Oz., 10c. ¼ lb., 20c. Lb., 60c. 5 lbs., \$3.00.

MAMMOTH WHITE.—Produces large, white shoots six inches above the surface; fine quality. **Pkt., 5c. Oz., 10c. ¼ lb., 20c. Lb., 60c.**

BARR'S MAMMOTH.—The stalks are very large, and retain their thickness completely up to the top of the shoots; light in color.

Pkt., 5c. Oz., 10c. ¼ lb., 20c. Lb., 60c. 5 lbs., \$3.00.

CONOVER'S COLOSSAL.—A mammoth, green sort of the largest size and of good quality. One of the best known and most generally cultivated varieties.

Pkt., 5c. Oz., 10c. ¼ lb., 20c. Lb., 60c. 5 lbs., \$3.00.

GIANT ARGENTUIEL.—A French variety. Stalks large and thick. **Pkt., 5c. Oz., 10c. ¼ lb., 20c. Lb., 60c.**

ASPARAGUS ROOTS.—A saving of one to two years is effected by planting roots. A bed 12x40 feet, requiring about 100 roots, should give a sufficient supply for an ordinary family. 7260 roots will plant an acre. Select good loamy soil, plow deep, put in good quantity of manure and 100 pounds kainit to 1000 square feet of bed. Incorporate thoroughly, make a trench eight inches deep, set plants nine inches apart. In field culture rows are placed four feet apart.

	Per 100	Per 1000	Per 100	Per 1000
Barr's Mammoth.....	\$1.00	\$7.00	Palmetto (Green).....	\$1.00
Colossal (Green).....	1.00	7.00	Mammoth White.....	1.00

Prices, by Express, Not Prepaid.

ASPARAGUS KNIFE



Made of solid steel; see the cutting point. Price, 60c. each.

RAFFIA

The best material for tying plants, vines, etc. Per pound, 30c.

ASPARAGUS BUNCHER



This Asparagus Buncher is adjustable with patented clamp. Price, \$3.00 each.

UNITED STATES FOOD ADMINISTRATION LICENSE
No. G 22972.

BEANS

DWARF OR BUSH-WAX PODDED

Select light, warm soil and plant when danger from frost is past in the spring, in drills 2 to 2½ feet apart, dropping the beans about 6 to 8 inches apart in the drills, and cover 2 inches deep. A succession of sowings can be made from the first week in May until August.

Add 6 cents per pound on all Beans if to be sent by mail. For larger quantities see table on page 2. Crop very short, order early.

IMPROVED RUSTPROOF GOLDEN WAX.

This is the earliest, handsomest and hardest of all the Wax Beans. The pods are straight, long and thicker than the ordinary Golden Wax, much superior in quality, absolutely rust-proof and sure to become the favorite Wax Bean; in fact, it has already gained great popularity with growers.

Pint, 30c. Quart, 50c. Peck, \$3.25. Bushel, \$12.00.

GOLDEN-EYED WAX.

This Bush Bean is very early; the vine grows vigorously to about one and a half feet high, holding pods off the ground. The pods are handsome, long, straight and flat, remarkably free from rust.

Pint, 30c. Quart, 50c. Peck, \$3.25. Bushel, \$12.00.

DAVIS' KIDNEY WHITE WAX.

Vigorous grower, bears abundantly; long, white, handsome pods, which are crisp and tender if gathered when young.

Pint, 30c. Quart, 50c. Peck, \$3.25. Bushel, \$12.00.

DWARF PROLIFIC BLACK WAX.

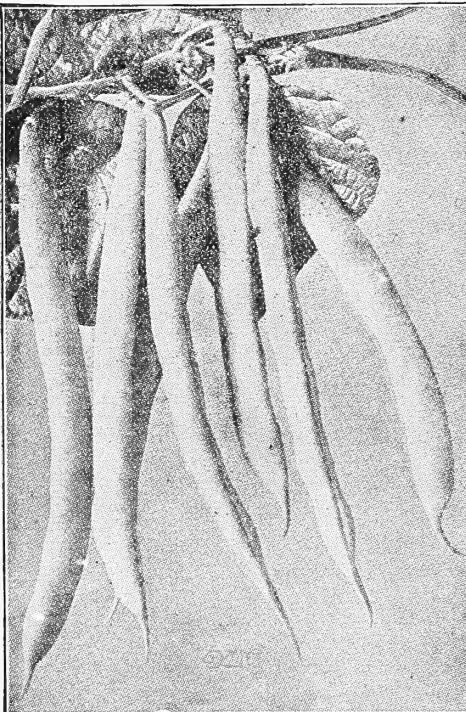
Yellow pod, a very superior snap sort, ripening among the first earlies and having the best characteristics. Very tender.

Pint, 30c. Quart, 50c. Peck, \$3.00. Bushel, \$11.00.

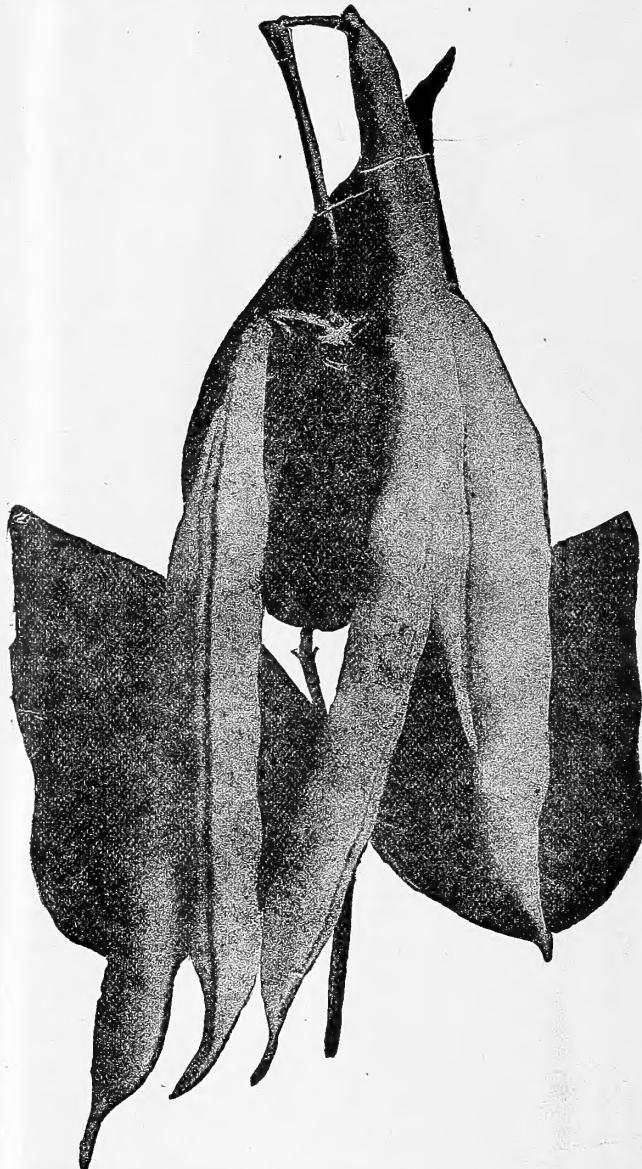
HODSON WAX.

The most vigorous wax-podded bean yet introduced. The yield of large, handsome pods is enormous. Its dense foliage protects the pods, so that their color is clear creamy white. Pods very long, straight or slightly curved, flat, but fleshy, quite stringless and of very good quality. While late in maturing, the remarkable vigor of the plant is a safeguard against blight and other diseases.

Pint, 30c. Quart, 50c. Peck, \$3.25. Bushel, \$12.00.



CURRIE'S RUSTPROOF GOLDEN WAX.



NEW BALTIMORE STRINGLESS WAX.

Black seeded, early; thick flat yellow pod. No strings. Have appearance of Currie's Rustproof Wax, but are better cropper, and absence of strings make them much more desirable for canning and other uses.

Pint, 30c. Quart, 50c. Peck, \$3.25. Bushel, \$12.00.

CURRIE'S RUSTPROOF BLACK WAX.

For earliness and freedom from rust it is at the head of the Wax Bean family. Habit, upright and robust, holding the pods well from the ground. Pods long, straight, flat and very meaty, of a beautiful color; quality not surpassed, and for productiveness it is unequalled.

Pint, 30c. Quart, 50c. Peck, \$3.00. Bushel, \$11.00.

WARDWELL'S KIDNEY WAX BEAN.

This is one of the best wax sorts. The vines are remarkably vigorous, hardy and productive. The pods are very large, smooth, showy, tender, perfectly stringless and of unusually fine quality.

Pint, 30c. Quart, 50c. Peck, \$3.25. Bushel, \$12.00.

NEW PENCIL POD WAX BEAN.

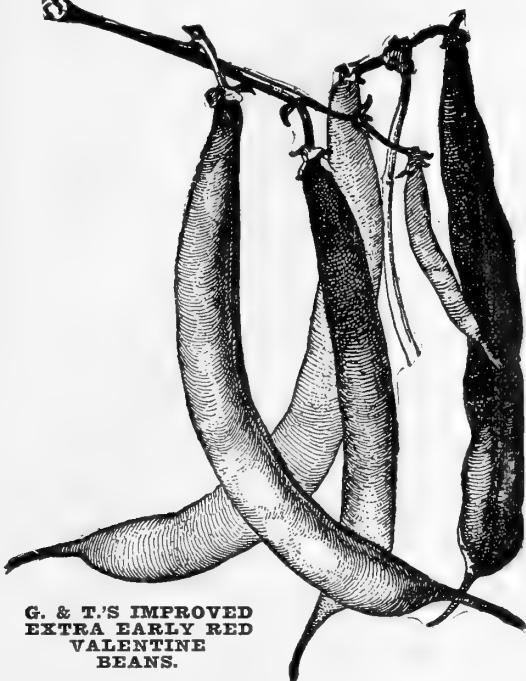
Very early and productive. Pods long, straight and handsome; color, light golden yellow; strong and vigorous bush. One of the best varieties.

Pint, 30c. Quart, 50c. Peck, \$3.00. Bushel, \$11.00.

BEANS GREEN-PODDED BUSH

UNITED STATES FOOD ADMINISTRATION LICENSE NO. G 22972.

The green podded dwarf sorts are perhaps the most important class of garden beans and are probably more extensively used for snaps than the wax podded varieties, although the latter are considered by many as the more attractive in appearance. The green podded sorts are as a rule the more productive, being less sensitive to unfavorable conditions of soil and climate and of late years have been less susceptible to bean diseases.



G. & T.'S IMPROVED
EXTRA EARLY RED
VALENTINE
BEANS.

G. & T. CO'S EXTRA EARLY RED VALENTINE (Specialty).—Ten days earlier than the ordinary Red Valentine Bean, and therefore the best for truckers and market gardeners. It is without doubt the very best and earliest green Snap Short Bean.

The habit of the vine is dwarfed and very uniform. Color of pods light green, round, curved, succulent, prolific, continuing long in edible condition. **Pt., 30c. Qt., 50c. Pk., \$2.75. Bu., \$11.00.**

BLACK VALENTINE.—This excellent extra early variety has perfectly round, straight pods of excellent quality. It is suitable both for early and late planting, being extremely hardy. A most desirable sort for the market gardeners, owing to its enormous yielding qualities, large and handsome appearance. **Pt., 30c. Qt., 50c. Pk., \$2.75. Bu., \$11.00.**

EXTRA EARLY BOUNTIFUL (Flat Green Pod).—A prolific and continuous bearer. The first in the spring, the last in the fall. Absolutely stringless, very tender and of delicious flavor. **Pt., 30c. Qt., 50c. Pk., \$2.75. Bu., \$11.00.**

EXTRA EARLY REFUGE.—It is similar in every respect to the ordinary Refugee, but is nearly two weeks earlier. It is enormously prolific, and from its earliness is almost certain to produce a crop, no matter how unfavorable the season; is rapidly becoming a favorite sort, as it matures

equally early with Red Valentine and has that beautiful silvery green color in the pods that is so much desired.

Pint, 30c. Quart, 50c. Peck, \$3.00. Bushel, \$11.00.

REFUGEE, or 1000 TO 1.

A medium to late variety, very productive and largely grown for pickling; handsome and tender pods.

Pint, 30c. Quart, 50c. Peck, \$2.75. Bushel, \$11.00.

GREEN-PODDED STRINGLESS REFUGEE.

Medium-early, round-podded green stringless; exceptionally good cropper. Fine for canning and table use. Newest thing in Green Pod Stringless Beans.

Pint, 30c. Quart, 50c. Peck, \$3.25. Bushel, \$12.00.

BURPEE'S NEW STRINGLESS GREEN POD.

One of the earliest varieties, pods round and full, absolutely stringless and of beautiful fleshy appearance; quality excellent. The only green pod bean of which the pods never develop any strings.

Pint, 30c. Quart, 50c. Peck, \$3.00. Bushel, \$11.00.

BURPEE'S STRINGLESS GREEN POD BEANS.

GIANT STRINGLESS GREEN POD.

Resembles very much the old Valentine. The plants are of strong growth, very productive; pods 5 inches long, light green, slightly curved, very meaty, brittle and stringless at all stages and of mild flavor. **Pint, 30c. Quart, 50c. Peck, \$3.00. Bushel, \$11.00.**

EARLY MOHAWK.

This exceptionally hardy sort can be planted earlier than others and in this way will often furnish beans fit for use before any other green podded variety. The plants are large and stout, with large coarse, dark green leaves. The pods are medium dark green, long, six to six and one-half inches, straight, coarse, flat, with long tapering points. **Pint, 30c. Quart, 50c. Peck, \$3.00. Bushel, \$11.00.**

LONG YELLOW 6 WEEKS.

The plants of this hardy variety, large, vigorous, erect and very productive. The leaves are large. The pods are long, about six inches, straight, flat, handsome, rather light green and when young are of good quality for snaps. **Pint, 30c. Quart, 50c. Peck, \$3.00. Bushel, \$11.00.**

DWARF HORTICULTURAL (Cherry).

Very green podded sort, used as a shell bean, and for this purpose is one of the finest in general use; long a favorite with those who use a shell bean in a green state. **Pint, 30c. Quart, 50c. Peck, \$3.25. Bushel, \$12.00.**

BEST OF ALL.

One of the most valuable green podded sorts for family or market use. Pods are six inches long, very fleshy, succulent, stringless, of rich flavor; produced early and abundantly. **Pint, 30c. Quart, 50c. Peck, \$3.25. Bushel, \$12.00.**

WHITE MARROWFAT.

Extensively grown for sale as a dry bean for winter use. **Pt. 30c.; Qt., 50c.; Pk., \$2.00; Bu., \$7.00.**

WHITE NAVY, or SMALL PEA BEAN.

A well-known variety for field culture; very prolific. **Pt., 30c.; Qt., 50c.; Pk., \$2.00; Bu., \$7.00.**

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

BUSH LIMA BEANS

U. S. FOOD ADMINISTRATION LICENSE NO. G 22972.

Plant in drills two to three feet apart, dropping the beans three to four inches apart and covering one and one-half to two inches deep. If planted in hills, make the hills two to three feet apart one way and two to two and one-half feet the other and plant four beans in a hill. Hoe often but only when the leaves are dry.



BURPEE'S BUSH LIMA.

Set the poles 3 to 4 feet apart and plant 6 to 8 beans, with the eyes downward, around each pole, thinning to 4 healthy plants when they are up. They require the same soil and treatment as the dwarf varieties.

When Beans are sent by mail add, for postage, 6c. per pound. For larger quantities refer to table on page 2.

FORDHOOK BUSH LIMA.—An improved dwarf Lima of the Kumerle type. The plant is vigorous and erect growing, bearing well above the ground. The pods are produced in large clusters, each containing three to five large beans of exceptionally fine quality. Much more productive than Kumerle and matures earlier. We consider this a decided acquisition to the dwarf Lima, possibly the best of the class. Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

BURPEE'S IMPROVED BUSH LIMA.—Will outyield Burpee's Bush Lima by fully one-third. This greater yield is due to the increased size of both pod and beans. The dried beans are very handsome, and generally show a greenish-white coloring, while dried beans of the Burpee Bush Lima, like those of the Large Pole Lima, are pure white. Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

BURPEE'S BUSH LIMA.—Bushes grow 18 to 20 inches high, stout growth and always erect, yet branching so vigorously that each plant develops into a magnificent circular bush 2 to 3 feet in diameter; an immense yielder, each bush bearing 50 to 200 handsome, large pods, well filled. Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

KUMERLE, or DREER'S BUSH LIMA.—Dwarf variety of Dreer's Improved Lima, which has been fixed in its character of a bush bean; very prolific, single plants often producing 150 to 200 pods. Equal in quality and tenderness to Dreer's Pole Lima.

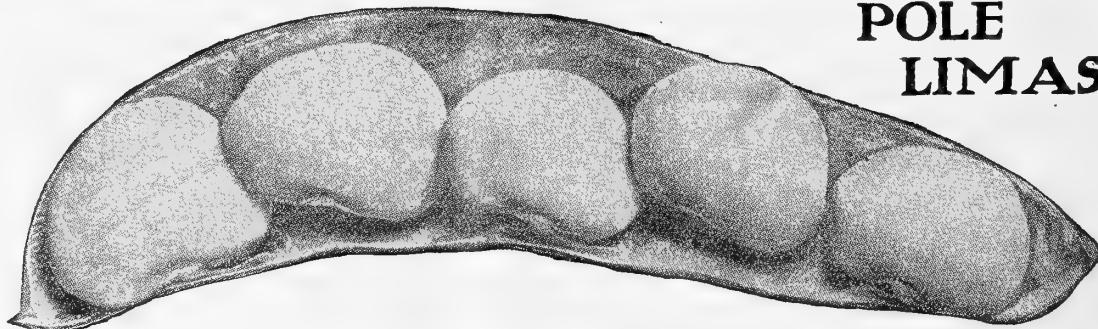
Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

DREER'S WONDER BUSH LIMA.—Very desirable on account of earliness, productiveness; of strong, upright growth, and are completely covered with large pods, many of which contain four beans, which are fully as large as the Pole Limas. The beans are flat in shape and of excellent quality.

Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

HENDERSON BUSH LIMA.—These are very valuable, because they do not need poles, and, being so dwarf, can be planted close together. They are very early and prolific, continuing to bear until frost. Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

POLE LIMAS



CARPENTERIA POLE LIMA.—The newest large pole Lima; enormously prolific; early green and delicious flavor.

Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

HENDERSON'S EARLY LEVIATHAN.—This is the very earliest. It will not only give large Lima beans earlier than any other strain, but is also much more productive, both early and throughout the season. It is a strong grower, clinging well to the poles, and is a sure cropper. The pods hang out from the foliage in large clusters and contain three or four and sometimes five large beans to the pod. Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

KING OF THE GARDEN LIMA.—This bean has met with enormous sales the past few seasons. They are vigorous growers, setting their beans early at bottom of pole, producing continuously to the end of the season. They are more prolific than the ordinary Lima, bearing pods 5 to 7 inches long, in clusters of 4 and 5, with 5 or 6 beans in a pod.

Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

EXTRA LARGE WHITE LIMA.—This is a splendid sort, and takes a leading place with growers, because of its many excellent qualities. As a shell bean surpasses all in quality, and is the favorite with most people.

Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

FORD'S MAMMOTH POLE LIMA BEAN.—The pods grow to an average length of 8 inches, are produced in great clusters, with from 5 to 7 beans per pod of most excellent quality for using either green or dry. The vines grow vigorously, setting the beans early at the bottom of the pole, and continue in bearing up to frost. Pint, 35c.; Qt., 60c.; Peck, \$4.00; Bu., \$16.00.

EXTRA EARLY JERSEY LIMA.—This variety is two weeks earlier than other sorts; the pods are large and numerous, making it a very profitable sort to grow. Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

SEIBERT'S LARGE EARLY.—A very early and prolific strain of the Large Lima. The vines begin bearing pods considerably earlier than the regular strains of Large Limas. While the pods are only of medium length, they are well filled, containing 3 and 4 large, fleshy beans, which are extremely tender and fine in flavor. Pint, 35c.; Qt., 60c.; Peck, \$4.00; Bu., \$16.00.

DREER'S IMPROVED OR CHALLENGE POLE BEAN.—This popular bean is considered by many growers superior to all others in quality and productiveness. When green it is as large as the Large Lima, thicker, sweeter and more tender and nutritious, remaining green in the pod for a long time after maturing. Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

CAROLINA OR SIEVA.—A seedling variety of Large White Lima, with small pods, usually about 2 inches long. A little earlier and harder. Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.

BEANS --- Pole or Running

These are of strong running growth, and need stout poles on which to climb. They require a longer season in which to mature than do the bush varieties, but by reason of their stronger growth are more productive, and growing on poles are more easily gathered.

MARYLAND WHITE.—This new White Pole Bean is destined to take its place as one of the best beans ever grown for general purposes. Its thick, meaty, green pods are very tender, rich in flavor, and produced in great abundance. It is equally valuable as a snap or shell bean. **Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.**

LAZY WIFE.—Large pale green pods, very thick meated, stringless, rich, tender and buttery; ripens early; clings well to the pole; enormously productive; splendid either as a snap or shell bean. **Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.**

KENTUCKY WONDER, OR OLD HOMESTEAD.—A very prolific sort, bearing its pods in large clusters; pods green, often reaching 9 to 10 inches in length, nearly round when young, and very crisp. **Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.**

SPECKLED HORTICULTURAL, OR WREN'S EGG.—An old favorite for both snap-shorts and dry beans. **Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.**

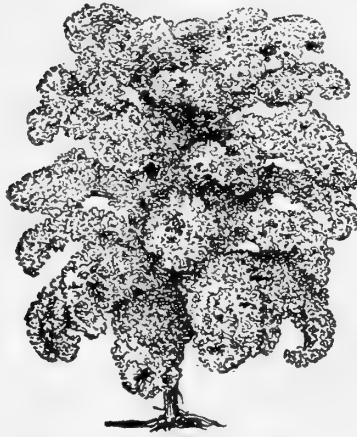
CREASE BACK, OR FAT HORSE.—A well-known and highly esteemed Southern variety; very productive; forms full, round pods; fleshy; stringless. **Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.**

SPECKLED CUT-SHORT, OR CORN HILL.—An old variety, very popular for planting among corn; pods short, cylindrical and tender. **Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.**

DUTCH CASE KNIFE.—Vines moderately vigorous, climbing well; may be used for a corn-hill bean; pods long, flat, irregular green, but becoming cream white. **Pint, 35c. Quart, 60c. Peck, \$4.00. Bushel, \$16.00.**



Kentucky Wonder Pole Beans.



BORECOLE.

BROCCOLI

1 Ounce of Seed to 100 Yards of Row.
The heads resemble somewhat a coarse cauliflower and the culture is the same as for that vegetable. Broccoli is well adapted only to those sections where the season is long, cool and rather moist. One of the most valuable features is that it withstands greater extremes of temperature than cauliflower.

EARLY PURPLE CAPE.—Large, compact.

Pkt., 10c. Oz., 50c.

LARGE EARLY WHITE.—Head white, like cauliflower; the best.

Pkt., 10c. Oz., 50c.



BORECOLE

This is often called Broccoli by market gardeners, but belongs to the Kale family. Very spreading in habit and beautifully curled.

Seed should be sown in May and transplanted in July, in the open field and treated same as Savoy Cabbage. **Pkts., 5c. and 10c. Oz., 15c. 1/4 Lb., 50c. Lb., \$1.75.**

SWISS CHARD

(Sea Kale or Spinach Beet.)

This kind of beet is grown exclusively for the numerous, fleshy, tender leaves and leaf stalks, which are superior to those of other beets for use as greens. Later in the season the wax-like leaf stems are cooked like asparagus or are pickled. This variety we offer has large, broad, undulated leaves, and remarkably broad stalks and midribs or chards. It is well worthy of a place in the home garden as well as for market use.

Pkt., 5c. Oz., 15c. 1/4 Lb., 30c. Lb., \$1.00.

BRUSSELS SPROUTS

1 Ounce of Seed to 100 Yards of Row.

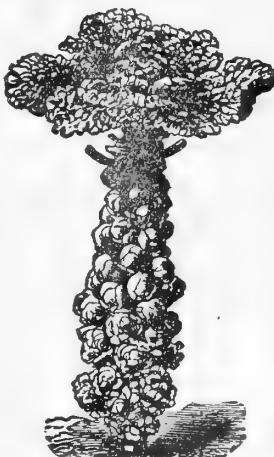
Brussels Sprouts are used in the fall and early winter and by some considered more tender and delicious than any cabbage. The plant resembles the cabbage, the edible part being the numerous very small heads or sprouts an inch or two in diameter formed on the stalk at each leaf joint. The culture is the same in all essentials as for cabbage, except the leaves should be broken down in the fall to give the little heads more room to grow.

Pkts., 5c. and 10c. Oz., 20c. 1/4 Lb., 60c. Lb., \$2.25.



Swiss Chard.

SWISS CHARD.



Brussels Sprouts.

BEETS

One Ounce of Seed Will Sow One Hundred Feet of Drill

Select a deep, rich sandy loam and manure with well decomposed compost or a good chemical fertilizer. Sow in drills, 14 to 16 inches apart, and cover 1 inch deep. When the young plants appear, thin to 4 or 5 inches apart. For early use, sow as soon as the ground can be worked in the spring; for autumn use, about the middle of May, and for winter use, during June or July, according to the variety—the long varieties requiring more time to mature than the round, early kinds.



Crosby's
Improved Egyptian.

EGYPTIAN BEET. CROSBY'S IMPROVED

A very superior strain of the well-known Egyptian, carefully selected, blood color, quick, rapid growth. The shape is very desirable, as shown in the accompanying photograph, being not so round as the Eclipse, or quite so flat as the ordinary Egyptian. It may be sown outside as late as July. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

BASSANO, OR EXTRA EARLY TURNIP.

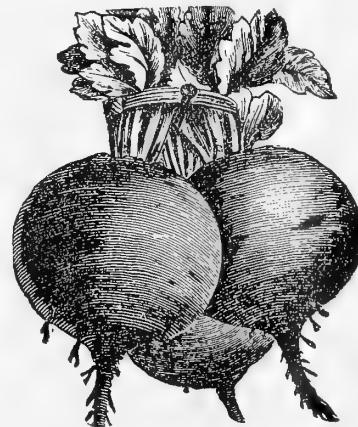
Flesh white and rose; very sweet and tender. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

EXTRA EARLY EGYPTIAN.

This is a flat Beet, very early and deep red color. Owing to the small top it can be planted very close. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

G. & T. CO.'S EARLY MARKET.

Its qualities are extra early, dark red color, fineness of shape and small top. One of the most attractive varieties grown, and is especially desirable for hotbeds on account of its small top and close-growing habit. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.



ECLIPSE BEET.

This extra early Beet is remarkable for its fine quality and rapid growth; is of deep red color and handsome shape. As an early market sort it is unrivaled. It is to a large extent superseding the Egyptian, being earlier in development, more attractive in appearance, and of superior quality for the table. Pkt., 5c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

EDMAND'S RED TURNIP.

The most uniform of all Turnip Beets. It is of handsome round shape, good marketable size and deep blood color. It has a small top, and may be planted close. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

DETROIT DARK RED TURNIP BEET.

This is one of the finest formed and handsomest-colored Beets on the market. It is unsurpassed in the uniformity and beauty of the crop. It is exceedingly early, and produces more marketable specimens on the same acreage than any other variety. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.



G. & T. CO.'S EARLY BLOOD TURNIP BEETS.

This is our Special Stock of Early Blood Turnip Beet, which we have been growing for a number of years, and which the market gardeners of Baltimore and other places prefer. It is of dark red color, handsome shape and early. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

LARGE LONG BLOOD.

A large and desirable late variety of deep red color. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

MANGEL WURZEL BEETS FOR STOCK

SOW 4 POUNDS TO THE ACRE.

Stock Beets grow larger than any other Beets, and hence require more room. They should be sown from April to June, in drills $2\frac{1}{2}$ feet apart, and the plants thinned to 12 to 15 inches in the row. The attention of farmers to the growing of Beets for stock feeding has rapidly increased, but it should be grown more generally, and will show the results in the health and condition of the stock. It supplies good, rich food for cattle during the winter.

LONG RED MANGOLD WURZEL.

The well-known, large, long variety, grows well out of ground. Color light red. Very productive. Pkt., 5c. $\frac{1}{4}$ Lb., 25c. Lb., 75c.

GOLDEN TANKARD MANGOLD.

The best type of Mangold—small top, smooth, rich skin, broad shoulders, very solid fleshed, golden stemmed, heavy producer. Pkt., 5c. $\frac{1}{4}$ Lb., 25c. Lb., 75c.

WHITE SUGAR BEET.

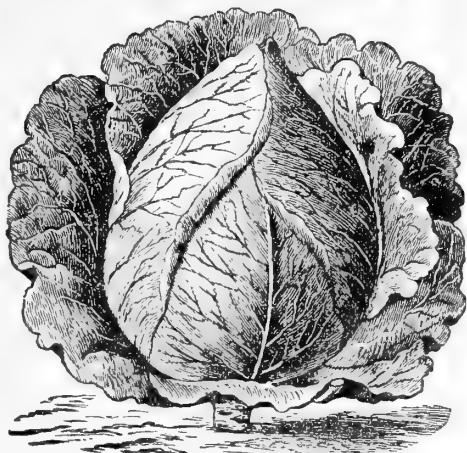
A large-growing sort, and used for feeding stock. Pkt., 5c. $\frac{1}{4}$ Lb., 25c. Lb., 75c.

CHAMPION YELLOW INTERMEDIATE, OR GATE-POST MANGOLD.

One of the very finest Mangolds ever introduced, giving unbounded satisfaction wherever grown. With good cultivation will crop at the rate of 200 bushels per acre. Pkt., 5c. $\frac{1}{4}$ Lb., 25c. Lb., 75c.



Golden Tankard Mangold.



Select Early Jersey Wakefield

American Grown.

The very best early Cabbage, and grown more extensively by market gardeners than any other variety. It is early, the heads are pyramidal in shape, very large and solid, and having but few outside leaves, the plants can be set close together. We secured our seed from a grower of the best Wakefield Cabbage in the country, and it is giving good results wherever it is used, so much so that our sales of this sort are rapidly increasing each year. The demand for this sort has brought on the market inferior stock at a low price; but when select stock, such as we offer, is used it cannot fail to give satisfaction. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

Charleston, or Large Wakefield

American Grown.

This is now a very popular market cabbage, fully meeting the demand for a cabbage having all the characteristics of the Jersey Wakefield, but larger. It is five to six days later than Early Jersey Wakefield. The heads are fully one-half larger and quite solid. It is very compact in growth, and can be easily planted in rows two feet apart and twenty inches in rows. One great advantage is, it does not burst open when ripe, like many other early sorts, and consequently can be left standing on the ground a long while without injury until a favorable opportunity for cutting. No market or private gardener desiring a cabbage of this kind should fail to plant this valuable sort.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

KING OF EARLIES.—Our own introduction; American grown. An extra early variety, fully a week ahead of all other varieties; short stem and proof against sun. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

EXTRA EARLY EXPRESS.—Heads are comparatively thicker and less pointed than Jersey Wakefield and slightly earlier. Head softer, but stands shipping better. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.



Copenhagen Market
Cabbage, New
From Denmark.

CABBAGE

One Ounce of Seed to 100 Feet of Row.
EARLY CABBAGES.

Cabbage will thrive on any good corn land, though the stronger the soil the better they will develop. New land is preferable. Plow deep and manure very liberally, as cabbage is a strong feeder, and will repay for the care bestowed upon it. The early sorts bear planting from eighteen inches to two feet apart in the rows, with the rows from two to two and a half feet apart. The larger varieties to be from two to four feet apart in the rows, with the rows from two and a half to four feet apart, the distance varying with the size. It does not pay to buy cheap cabbage seed. Ours are American grown, and from the best stock in the country. For early use, sow in a hotbed in February or March, and transplant to a cold-frame as soon as large enough. In April the plants may be set out in the rows. For late crop, sow in nursery bed in May or June, and transplant as soon as the plants are five or six inches high. The ground should be thoroughly cultivated every week until the plants meet in the rows.



LARGE OR CHARLESTON WAKEFIELD.

EARLY WINNINGSTADT.—Head large, cone-shaped and solid. An old and popular sort. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

LARGE EARLY YORK—(American Grown)—One of the earliest. Forms a medium size, pointed head. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

COPENHAGEN MARKET.—A new round head, solid cabbage, recently introduced from Denmark. It is without doubt the finest large round-headed early cabbage in cultivation. The type is thoroughly fixed and the heads mature uniformly, which enables the crop to be harvested at one time, so that the ground can be cleared in two cuttings.

It matures as early as the Charleston Wakefield, and will give a heavier yield per acre. In an average season heads will weigh about 8 pounds or more each.

The leaves are light green in color, tightly folded, which produces a short stem plant. We consider it the finest flat-head variety for spring or summer. Our seed comes from the originator direct.

Pkts., 5c. and 10c. Oz., 50c. $\frac{1}{4}$ Lb., \$2.00. Lb., \$7.00.

CABBAGE—CONTINUED



NEW EARLY—American Grown.

This is one of the finest large early cabbages grown. Forms solid, compact heads, and leaves grow close to the head, thus allowing many more cabbages to be grown on the acre than any other sort. One of its most striking features is its earliness. It heads so rapidly that the worms can't hurt it.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

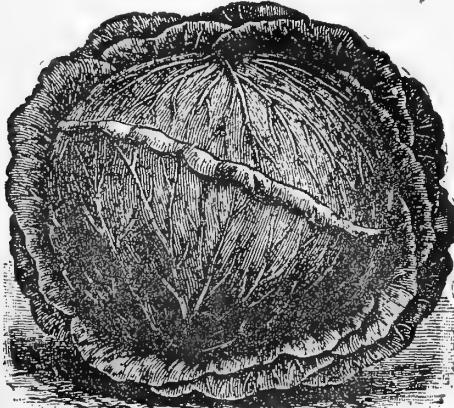
SUCCESSION CABBAGE.—A fine early variety, coming in a few days later than Early Summer, but it is immeasurably superior to that variety; it is nearly double the size, and is absolutely true to its type under all conditions. In addition to this, it has no tendency whatever to run to seed. It is one of the finest sorts in existence today; whether for medium early, main crop or late use, it has no superior. It is so finely bred and so true to type that in a field of twenty acres every head appears alike. We can recommend it either for the market gardener, trucker or private planter, as it is a perfect cabbage in every respect, not only being of the largest size, but of handsome color and of the finest quality. It is probably the safest variety for an amateur to plant, as it does well at all seasons, and one is almost sure of getting a crop, no matter when it is planted.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

EARLY SUMMER CABBAGE.—American grown. One of the earliest of the summer varieties. Heads large and flat; short stemmed, few outside leaves, uniform in character, and about 10 days later than the Wakefield. It is very popular with the truckers. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

LOUISVILLE DRUMHEAD.—American grown. This is the most popular intermediate or second early with market gardeners around Louisville and the Southwest. It comes off medium early, withstands heat to a remarkable extent, heads large, solid and uniform in size and color. We can recommend this sort very highly for the Southern and Middle States. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

FOTTLER'S EARLY DRUMHEAD OR SHORT STEM BRUNSWICK CABBAGE.—In its improved type, this is a very fine summer or early fall variety. Good both for intermediate and winter use. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.



ALL-HEAD EARLY CABBAGE.

ALL HEAD EARLY

ALL-HEAD EARLY—American Grown. is the largest of all early Cabbages, fully one-third larger than the Early Summer. It is the nearest approach to a thoroughbred cabbage of any variety, both in size and uniform development. As the All-Head comes in quicker than any of the other flat cabbages, it is consequently more tender. It is also valuable for a late or winter Cabbage.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

EARLY DWARF FLAT DUTCH— American Grown.

An old standard variety which stands the sun and produces fine, large heads, coming in soon after the Wakefield.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.



SUCCESSION CABBAGE.

ALL SEASONS—American Grown.

This forms a fine, large head, of superior quality, nearly as early as the Early Summer. Suitable for planting at any season.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

SUREHEAD—American Grown.

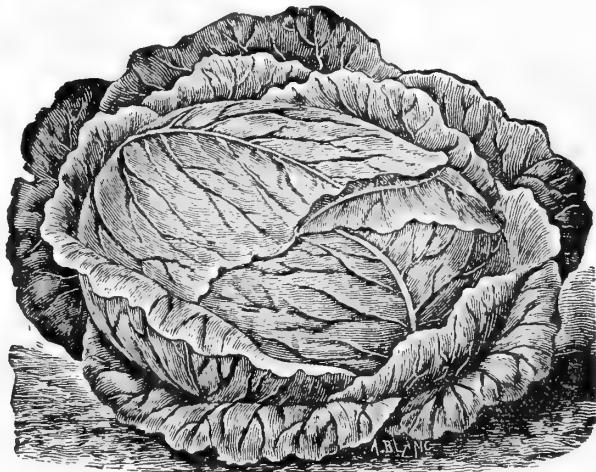
This popular cabbage is rightfully named Surehead, as it never fails to make a fine, large, solid head, with few outer leaves. It is a strong, vigorous grower, and very uniform in size and color. Always brings the highest price in our markets.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

LATE OR AUTUMN CABBAGE



BOSS FLAT DUTCH—LATE CABBAGE.



PREMIUM LARGE FLAT DUTCH—LATE CABBAGE.

BOSS FLAT DUTCH CABBAGE—

In again calling the attention of market gardeners and truckers to this magnificent Cabbage, we would say that it has fully met the claims we made for it upon its introduction. When we ask our customers how they like it, their answer is "Splendid!" or "Elegant!" "Everything heads!" "You can scarcely find any that don't head!" The heads are large, hard, thick and flat, the leaves lapping across the center, making it the most desirable winter variety in cultivation. Try it and be convinced of its superior quality.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.



PREMIUM LARGE LATE FLAT DUTCH CABBAGE—

American Grown.

Large and excellent for winter; very extensively grown. The head is broad, thick and flat, well covered in by leaves lapping across the center, outside leaves feathered to the base of the leaf stem.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

ENKHUIZEN GLORY CABBAGE

ENKHUIZEN GLORY.

A most valuable second-early Cabbage that is becoming immensely popular. It produces fine marketable heads fully as early as our famous Allhead Early—but round or ball-like in form. The heads are very solid, with but few outer leaves—and of such compact growth as to permit quite close planting, thus increasing the yield. The heads are of medium size, tender and of fine flavor. They keep well when put away and consequently Enkhuizen Glory is valuable also for sowing later in the season for early winter use. Plants set out in mid-summer will produce fine heads before cold weather. The seed we offer has been grown by the originator in Holland and will yield heads that will delight the most critical planters.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ lb., \$1.00. Lb., \$4.00.

DANISH BALL HEAD.

This most excellent variety of cabbage, coming from Denmark, has grown very rapidly into favor with both market and private gardeners. It is a large, round, solid heading, medium early variety; a very sure header, having few loose leaves, consequently can be planted very close together. Although a medium early, can also be grown for a fall and winter crop, being one of the best keepers. Very popular in Philadelphia, New York and Boston markets.

Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ lb., \$1.00. Lb., \$4.00.



DANISH BALL HEAD CABBAGE.

LARGE LATE AMERICAN DRUM-HEAD (American Grown).

One of the largest, most solid and best keeping late varieties. This variety seldom fails to head, and is of good quality. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

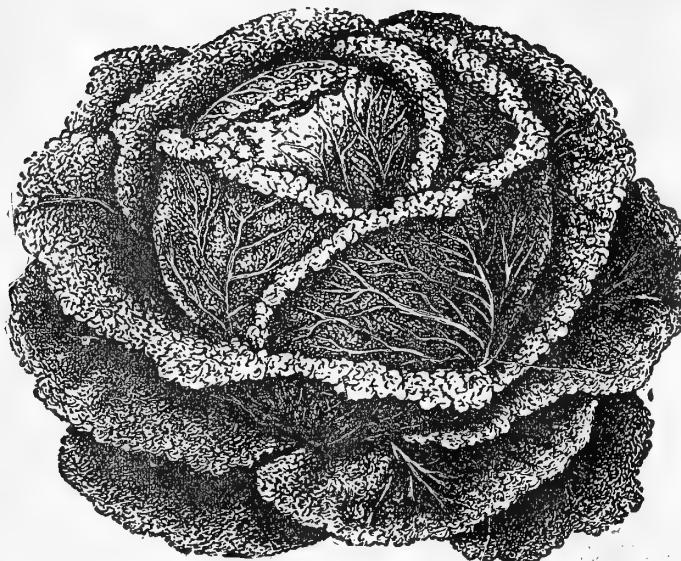
WORLD-BEATER, or AUTUMN KING.

This is a very superior late cabbage. The large, broad heads are very thick through, slightly rounded at the top, fine grained and tender, has a short stalk, green color, and one of the best keepers we know, and is a rapid grower. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

RED DUTCH.

The head is round, large, solid and a deep red color, the best of the red cabbages. Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.00. Lb., \$3.50.

LATE CABBAGES---CONTINUED



DRUMHEAD SAVOY.

PERFECTION DRUMHEAD SAVOY

AMERICAN GROWN.

This is without any exception the finest stock of Savoy cabbage to be found anywhere. The heads are large and solid, the leaves beautifully curled, and in tenderness and flavor it is almost equal to cauliflower, while its keeping quality is first class. To say that our market gardeners are pleased with it is putting it mild; they are enthusiastic over it, as they find it so much superior to the old-time Savoy. It is specially adapted to private use, as when grown in the fall and allowed to be touched by frost it is one of the most delicious

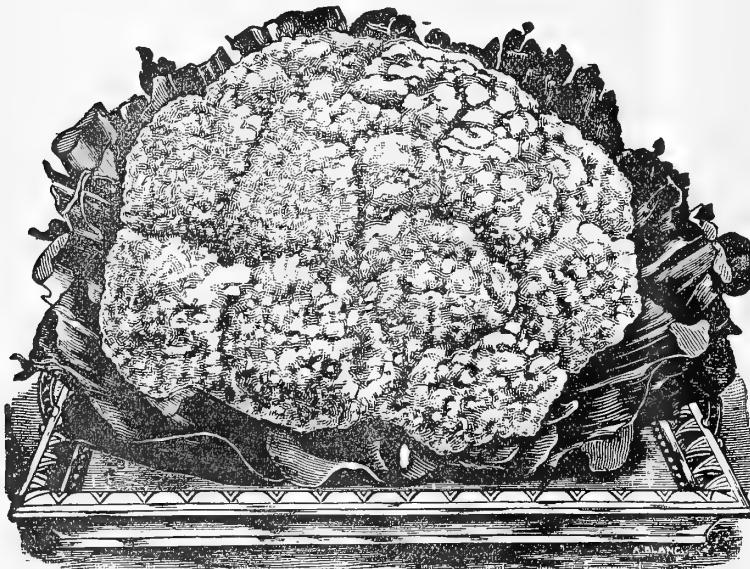
Packets, 5c. and 10c. Oz., 40c. $\frac{1}{4}$ Lb., \$1.50. Lb., —

GEORGIA COLLARDS

Called the Cabbage Collard on account of its close bunching growth. The plant produces center leaves generally perfectly white, though sometimes dashed with pink. It is a very delicate vegetable and of the finest quality.

Packets, 5c. and 10c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

G. & T. CO.'S LARGE GILT EDGE SNOWBALL CAULIFLOWER



or straw, it would keep the soil moist, and the plants would not suffer enough to plant out not later than the middle of April; the late kinds may be

Is without exception one of the finest sorts now in cultivation. It is very early. Nearly every plant will, under proper cultivation, form a perfect snow-white head, and its close growing, compact habit enables the grower to plant one-third more on the same space of ground than other varieties. In fact, it is, and deserves to be, the standard with the market gardener and amateur.

Packets, 25c. and 50c. $\frac{1}{2}$ oz., 90c. Oz., \$1.50.
 $\frac{1}{4}$ Lb., \$5.00.

EXTRA EARLY SNOWBALL.—Our stock of this well-known variety is unexcelled. It is one of the best sorts for open ground or forcing under glass.

Packets, 25c. and 50c. $\frac{1}{2}$ oz., 75c. Oz., \$1.50.

G. & T. CO.'S "DROUGHT-RESISTING."—Produces large white solid heads, maturing about a week later than our large Gilt Edge Snowball. The best for hot, dry weather.

Packets, 25c. and 50c. $\frac{1}{2}$ oz., 90c. Oz., \$1.50.
 $\frac{1}{4}$ Lb., \$5.00.

G. & T. CO.'S SELECT EARLY DWARF ER-FURT.—Long the standard of highest excellence, and still holding its own with a great many people.

Packets, 25c. and 50c. $\frac{1}{4}$ oz., 50c. Oz., \$1.50.

Culture.—The same as for Cabbage, except that extra manure and plenty of water will pay upon Cauliflower. If the soil be dry, water frequently, and if the plants could have a heavy mulch of hay from drouth. The early kinds should be strong from the same time as for Cabbage.



CORN SALAD

Three Ounces of Seed to 100 Feet of Row.

A favorite salad plant, and very hardy. Sow in August or September, and protect with leaves during the winter; it can be gathered in the spring very early. Sown in April, it is soon ready for use. The leaves are sometimes boiled and served as spinach.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c.
Lb., 60c.

CRESS, OR PEPPER GRASS

Used as a small salad. Sow very thickly in shallow drills, on a smooth surface, at short intervals throughout the season.

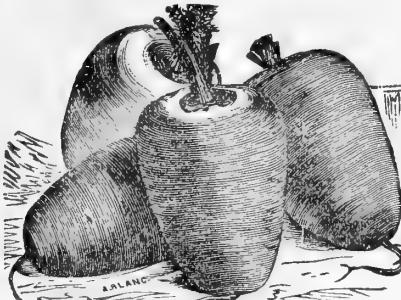
CURLED.—Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 25c. Lb., 75c.

WATER CRESS.—Water Cress may be grown along the margin of running streams, ditches or ponds, and has a ready sale in the hotels and markets.

Pkts., 5c. and 10c. Oz., 30c. $\frac{1}{4}$ Lb., 75c. Lb., \$2.50.

G. & T.CO.'S CARROTS

Carrots thrive best in rather a light, rich loam. The ground should be well manured with fine, well-rotted or composted manure, and be thoroughly worked quite deep. Sow from middle of April to middle of May, in rows 14 inches apart, and thin the plants to 5 or 6 inches in the row. For late crops sow in June or July. An important point is to tread the rows firmly after sowing. For field culture, Carrots should be sown in drills 3 to 3½ feet apart, so as to cultivate with horse.



OXHEART OR GUERANDE.

Oxheart or Guerande

One of the heaviest yielders and the best for stiff and heavy soils where the long varieties would fail. The roots are often 3 to 3½ inches thick at the top; nearly oval in shape; the flesh is bright orange, fine grained and sweet. Of the finest table quality and equally good for stock.

Pkt., 5c. Oz., 15c. ¼ Lb., 30c. Lb., \$1.00.

1 OZ. OF SEED TO
100 FEET OF ROW



CHANTENAY.

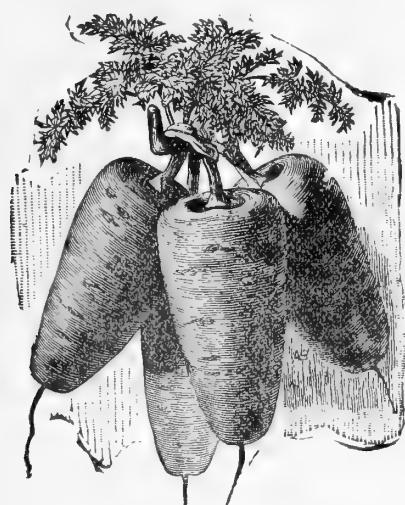
A most excellent, medium early, half long variety. It is one of the best in quality for the market and home garden, while its great productiveness and the ease with which it can be harvested make it desirable as a field sort. The tops are medium sized with small neck. The mature roots are thick, five and one-half to six inches in length; uniformly half long or stump rooted but tapering slightly, smooth, deep orange-red in color. The flesh is very crisp and tender. Although a medium early sort the roots are suitable for use nearly as early as any. The variety is extensively used for bunching.

Pkt., 5c. Oz., 15c. ¼ Lb., 30c. Lb., \$1.00.

CHANTENAY

The earliest variety in our list. Blunt-pointed, about 3 inches long, 1½ inches thick, very fine grained, sweet flavored; deep rich orange color. Fine for bunching.

Pkt., 5c. Oz., 15c. ¼ Lb., 30c. Lb., \$1.00.



EARLY SCARLET HORN.

HALF LONG DANVERS

A decided acquisition of the half-long type, broad-shouldered, cylindrical, admirable in color, fixed in habits, a wonderful producer. It is a first-class Carrot for all soils.

Pkt., 5c. Oz., 15c. ¼ Lb., 30c. Lb., \$1.00.

IMPROVED LONG ORANGE

Deep orange color, long, smooth, fine for either garden or field culture. All who have cattle should raise a surplus of this Carrot for feeding milk cows during winter. It increases the flow of milk and imparts to the butter a delicious flavor and a rich golden color.

Pkt., 5c. Oz., 15c. ¼ Lb., 30c. Lb., \$1.00.

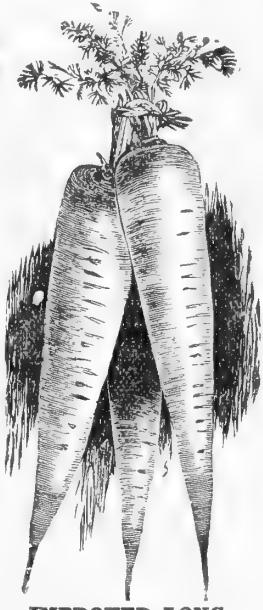
SCARLET INTERMEDIATE

A fine handsome Carrot, in form midway between the Long Orange and Early Scarlet Horn. The roots are smooth and handsome, deep orange color, medium length tapering to a blunt point. The flesh is sweet, crisp and tender.

Pkt., 5c. Oz., 15c. ¼ Lb., 30c. Lb., \$1.00.



DANVEES.



IMPROVED LONG
ORANGE.

1 Oz. Will Produce 2000 Plants. **CELERY**

CELERY

Requires water, and lots of it, from the time the seed is sown in boxes in March until it is pulled in the autumn or winter. The seed is slow to germinate, and the soil where it is planted needs to be kept very wet.

Plant seed in hotbed or very early in open ground. Transplant 4 inches apart when 3 inches high in rich soil, finely pulverized; water and protect until well rooted. In June or July transplant into rows 3 to 4 feet apart, either on surface or well-manured trenches a foot in depth, half filled with well-rotted manure. Set the plants from 6 to 8 inches apart. To blanch, draw earth around the plants from time to time, taking care not to cover the top of the center shoots.

FRENCH GOLDEN SELF-BLANCHING

This cannot be too highly recommended, as after being thoroughly tested it has fulfilled all that has been claimed for it. It is decidedly the very best and most profitable Celery in cultivation; it is very early and entirely self-blanching. The beautiful appearance of the plant, its close habit, compact growth, straight, vigorous stalks, solid, crisp, brittle ribs, fine quality and delicious flavor commend it to all lovers of Celery. No variety can surpass if, indeed, equal the Paris Golden Self-Blanching in its striking appearance and delicious flavor. Our stock of this variety has been giving the market gardeners the very best results for several years.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 50c. Lb., \$5.00.



FRENCH GOLDEN SELF-BLANCHING CELERY.

IMPROVED BOSTON MARKET

This is a decided improvement on the old Boston Market, being earlier, larger in size and of more vigorous growth.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 50c. Lb., \$1.75.

WHITE PLUME

An early, handsome, self-bleaching variety, growing in popularity every year. Like the Golden Self-Blanching, it requires very little earthing up to blanch it, and as a Celery for fall and early winter use it is unsurpassed.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 60c. Lb., \$2.25.

WHITE SOLID

A large standard sort. One of the large growing sorts.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 50c. Lb., \$1.75.

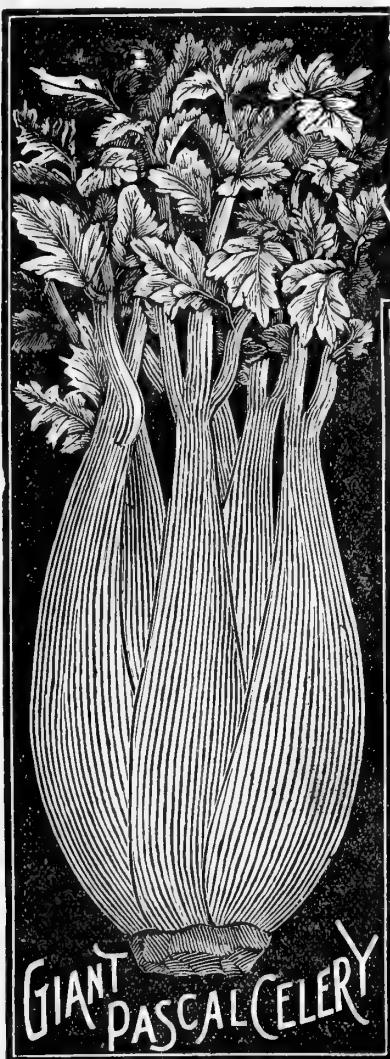
CELERY SEED FOR FLAVORING

This seed is used for flavoring pickles, soups, etc.

Pkt., 5c. $\frac{1}{4}$ Lb., 25c. $\frac{1}{2}$ Lb., 40c. Lb., 80c.

WHITE PLUME CELERY.

CELERY—CONTINUED



1 Oz. W'll Produce 2000 Plants.



GIANT PASCAL CELERY.

A selection from the well-known Self-Blanching Celery. It partakes of the best qualities of that variety, is somewhat larger, and an excellent keeper. It is of fine nutty flavor, being entirely free from any bitter taste. It grows about 2 feet high. The stalks are very broad, thick and crisp; the width and thickness of these are distinctive features of this variety.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 50c. Lb., \$1.75.

GOLDEN HEART, OR GOLDEN DWARF CELERY.

GOLDEN HEART, OR GOLDEN DWARF CELERY.
This old standard variety still holds a high place in the estimation of market gardeners, and is largely used, always giving satisfaction. A showy sort, solid, of fine flavor and a good keeper.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 50c. Lb., \$1.75.

WINTER QUEEN CELERY.

It is, without doubt, the most valuable variety of Celery for winter and spring use ever introduced. It is also much stouter, thicker and heavier, with double the amount of heart of any known Celery. The plant is beautiful in appearance, of close habit and compact growth, and blanches to a beautiful cream white. Ribs perfectly solid, crisp and of delicious nutty flavor.

Pkt., 10c. Oz., 20c. $\frac{1}{4}$ lb., 50c. Lb., \$1.75.

NEW YORK GIANT SELF-BLANCHING CELERY.
A fine large, white self-blanching celery. It is extra early, and if sown in early spring can be had for market in August. We consider it the best white variety for the early fall trade; has a vigorous growth and attains a very large size; is crisp, tender, brittle and very sweet, with a nutty flavor superior to any of the old kinds.

Pkts., 5c. and 10c. Oz., 30c. $\frac{1}{4}$ lb., \$1.00. Lb., \$3.00.

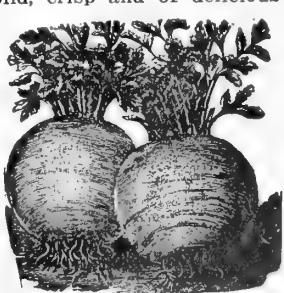
CELERIAC OR TURNIP ROOTED CELERY.

LARGE SMOOTH PRAGUE.

The largest, smoothest and best of the Celeriacs. Pkts., 5c. and 10c. Oz., 15c. $\frac{1}{4}$ lb., 50c. Lb., \$1.75.

NEW APPLE SHAPE.

Small foliage, large, round and smooth. Pkts., 5c. and 10c. Oz., 15c. $\frac{1}{4}$ lb., 50c. Lb., \$1.75.



ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

CORN For Table Use

56 POUNDS PER BUSHEL.

UNITED STATES FOOD ADMINISTRATION LICENSE NO. G 22972.

WHEN CORN IS WANTED BY MAIL, ADD 6 CENTS PER FOUND TO PAY POSTAGE.

CULTURE.—Sugar Corn may be planted in rows 3 to 4 feet apart, and the seeds placed about 8 inches apart in the rows, or planted in hills 3 to 4 feet apart each way, according to variety grown, or richness of soil. Do not let more than three plants remain in each hill. It can be planted in this vicinity from first of May to last of July for succession of crop. By planting every two weeks a family may have good corn throughout the whole season.

Extra Early
Baltimore.

Not a Sugar Corn, but are used for very early planting and will mature nice roasting ears before the sweet corn.

G. & T. Co.'s New
Sixty Day.

FIRST EARLY VARIETIES

FIRST EXTRA EARLY VARIETIES.

EXTRA EARLY BALTIMORE.—The hardest and earliest variety for table use; it can be planted earlier than any other, but is not a sweet corn; white indented grains and short ears. **Pint, 15c. Quart, 25c. Peck, \$1.50. Bushel, \$6.00.**

G. & T. CO.'S NEW 60-DAY CORN.—The largest extra early corn grown. As early as Extra Early Adams, but grows larger ears. Crop Failed.

EXTRA EARLY ADAMS.—Extremely hardy and early; one of the best for early planting. **Pint, 15c. Quart, 25c. Peck, \$1.50. Bushel, \$6.00.**

EARLY ADAMS.—A favorite in the South. **Pint, 15c. Quart, 25c. Peck, \$1.50. Bushel, \$6.00.**

NINETY-DAY CORN (Red Cob.)—This is an elegant corn for truckers and market gardeners, as it is as good a seller as green corn, and if not used as green corn makes a good variety for feeding purposes. It may be planted for early crop, and at intervals until the middle of July. Many truckers use it for their late planting, as it produces a very sure crop. **Quart, 15c. Peck, \$1.00. Bushel, \$3.75.**

SWEET OR SUGAR CORN

EXTRA EARLY VARIETIES. (Bushel Sweet Corn, 44 lbs.).

DE LUE'S GOLDEN GIANT SUGAR CORN

DE LUE'S GOLDEN GIANT SUGAR CORN is the result of fourteen years of selection from the product of the **Howling Mob** crossed with **Golden Bantam** and combines all the good points of both parents. Because of its excellent qualities it was awarded the only medal given by the Massachusetts Horticultural Society in 67 years, and has since been given three first prizes by the same society.

The stalks grow 4½ feet to 6 feet tall and very near the ground; about one-third are purple in stalk leaf and husk. They carry two or three good ears, 7-9 inches long; cob of small diameter, with 12-20 rows of long, deep kernels of deep orange color. The husk is very heavy, affording the end protection from worm and bird.

Customers of the last three years report that it is the sweetest and most tender and juicy of all sweet corns, and that it is in some cases one to two weeks earlier than Bantam, besides being three times as large.

It excels all other early varieties in size, productiveness and quality, and all the late varieties in quality and early maturity.

It is the one corn for the home or market gardener who wants the greatest amount of highest quality corn in the shortest period of time from the smallest piece of land.

Our seed is grown and packed by the originator. **Price—2 oz., 35c. 4 oz., 50c. 8 oz., 85c. 16 oz., \$1.50.**

NEW GOLDEN BANTAM SUGAR CORN.—The earliest and best of sugar corns. It is of golden color and delicious flavor, with the sweetness of honey; can be planted earlier than the other varieties of true sweet corn, as it is very hardy. The stalks are dwarf in habit, growing about four feet high, producing two or three good ears five to six inches long, well set from the ground. **Pint, 15c. Quart, 30c.**



Comparative Size of Golden Bantam and New Golden Giant Sugar Corn.

PREMO.—The best early sweet corn on the market. A genuine sweet corn as early as the Adams Extra Early, and larger than any other early variety. The quality is the best, ears measuring 7 to 9 inches long, being well filled to the end; generally bearing two ears to the stalk. **Pint, 15c. Quart, 30c. Peck, \$1.75.**

CORY.—An early variety red cob. **Pt. 15c. Qt., 30c.**

FIRST OF ALL.—A selection from the Cory, the ears about the same size as the Cory, lighter in color and earlier. **Pint, 15c. Quart, 30c.**

WHITE CORY.—An early variety, with good-sized ears and large kernels. **Pint, 15c. Quart, 30c.**

STAUBLER'S EARLY.—Of larger size than usual for the early kinds. It is remarkable for the fine flavor and sweetness, and is a desirable gardeners' and canning variety. **Pint, 15c. Quart, 30c.**

CROSBY'S EXTRA EARLY.—An early market variety, very productive; ears rather short and rich, sugary flavor. **Pint, 15c. Quart, 30c.**

EARLY MINNESOTA SUGAR.—One of the first early among sugar corns. **Pint, 15c. Quart, 30c.**

BLACK MEXICAN SUGAR.—The black corn is especially rich in sugary qualities. **Pint, 15c. Quart, 30c.**

CAUTION.—Sweet Corn in bulk, even after being thoroughly cured, will often gather moisture and spoil, particularly if it has been exposed to a low temperature. To prevent this it should be taken out of the bag as soon as received and spread in a dry place.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

ASK FOR PRICES IN QUANTITY.

SWEET OR SUGAR CORN FOR TABLE USE

CAUTION.—Sweet Corn in bulk, even after being thoroughly cured, will often gather moisture and spoil, particularly if it has been exposed to a low temperature. To prevent this it should be taken out of the bag as soon as received and spread in a dry place.

UNITED STATES FOOD ADMINISTRATION LICENSE NO. G 22972.

Main Crop Varieties

COUNTRY GENTLEMAN CORN.—This is the sweetest and most deliciously flavored of all sugar corn. It is the finest variety for the table, and will delight the most fastidious epicure. It produces three to four ears to the stalk, and retains its greenness longer than other sorts. **Pint, 15c.
Quart, 25c. Peck, \$1.50. Bushel, \$6.00.**

STOWELL'S EVERGREEN.—So well known that it scarcely needs description. Excellent; keeps green till cold weather; ears large; one of the best. **Pint, 15c. Quart, 25c. Peck, \$1.50. Bushel, \$6.00.**

TRUCKERS' EARLY SUGAR CORN.—This is the most desirable variety of sugar corn for truckers and gardeners to plant early. As its many excellent qualities are becoming generally known, it has come to be one of the standard sorts. It is ten days earlier than Evergreen, very productive, growing two to four ears to the stalk. The ears set low, are large and well filled the grain long and narrow, similar to Evergreen, but smaller. It is one of the most productive varieties in cultivation.

Pt., 15c. Qt., 25c. Peck, \$1.50. Bu., \$6.00.

HICKOX.—A very handsome and excellent variety of sugar corn; large, white grain and sweet.

Pt., 15c. Qt., 25c. Peck, \$1.50. Bu., \$6.00.

IMPROVED NE PLUS ULTRA.—Early, good-sized ears and deep grain; very productive, some stalks yielding four ears and an average crop running as high as three ears to the stalk.

Pt., 15c. Qt., 25c. Peck, \$1.50. Bu., \$6.00.

LATE HAMMOTH.—The largest variety grown; very fine for market purposes.

Pt., 15c. Qt., 25c. Peck, \$1.50. Bu., \$6.00.

Egyptian, or Washington Market.—A large variety, somewhat resembling the Evergreen; flavor peculiarly rich and sweet, and of superior quality; fine for market.

Pint, 15c. Quart, 25c.

ZIGZAG EVERGREEN.—This is one of the sweetest and best late sweet corn, not even excepting the celebrated Country Gentleman and Shoe Peg. The ears resemble Stowell's Evergreen in size and shape, except that the kernels are placed irregularly or zigzag upon the cob, which is always an indication of great sweetness in any variety of sugar corn.

Pint, 15c. Quart, 25c.

KENDALL'S EARLY GIANT.—The largest early sweet corn known, and is very productive.

Pint, 15c. Quart, 25c.

EARLY MAMMOTH.—A splendid market sort, producing large, handsome ears; grain large, white and sweet; fills out well at the end.

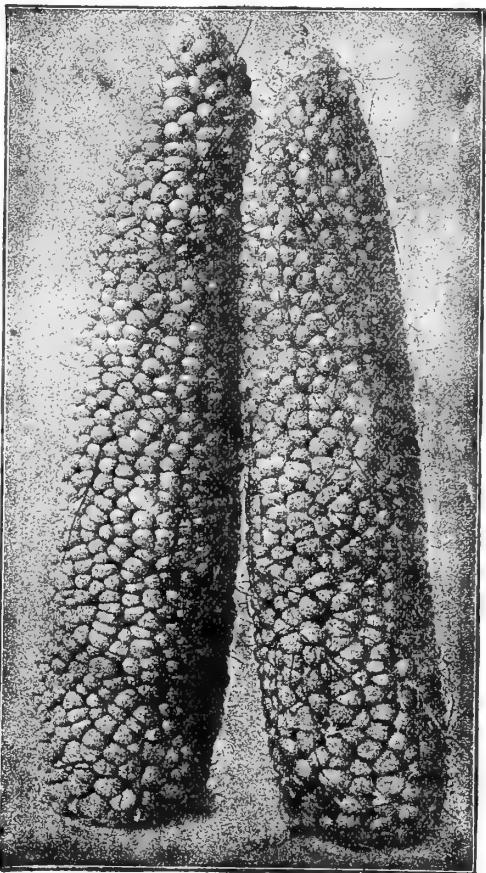
Pt., 15c. Qt., 25c. Peck, \$1.50.

WHITE EVERGREEN.—Has ears as large as Stowell's, is five days earlier; grains pure white. A valuable acquisition for the gardener and canner.

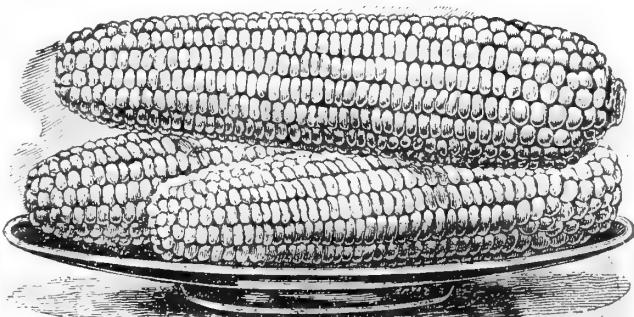
Pt., 15c. Qt., 25c. Peck, \$1.50.

SUGAR CORN.—For fodder. Write for prices.

BUSHEL SWEET CORN CONSISTS OF
44 POUNDS.



COUNTRY GENTLEMAN.



STOWELL'S EVERGREEN.

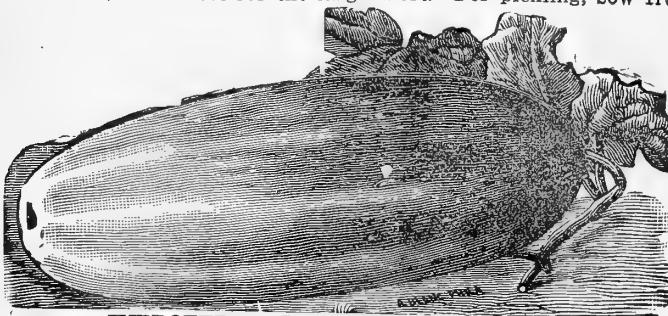
TRUCKERS' EARLY CORN.

ASK FOR PRICES IN QUANTITY.

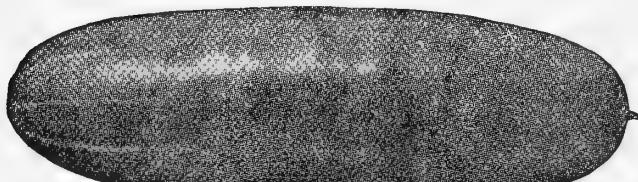
1 Oz. Will Plant 50 Hills.
2 Lbs. Will Plant an Acre.

CUCUMBER CULTURE

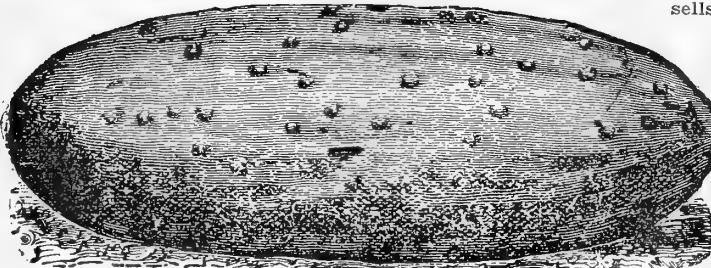
For very early Cucumbers sow the first of April in a hotbed upon pieces of sod (grass side down), so that they can be readily transplanted to the open ground in rich soil when danger of frost is over, or protect by hand-glasses. The vines require a warm location for early Cucumbers. Plant after the ground has become warm in hills 4 feet apart for the smaller varieties, and 5 feet for the larger sort. For pickling, sow from middle of June to last of July. Manure with ashes, fertilizer or some well-rotted compost, working the manure just under the surface. Sprinkle the vines with slug-shot, plaster or air-slaked lime to protect from bugs. The Cucumbers should be gathered when large enough for use, whether required or not; if left to ripen, it destroys their productiveness.



IMPROVED BALTIMORE WHITE SPINE.



EARLY FORTUNE CUCUMBER.



JERSEY PICKLING.



IMPROVED LONG GREEN.

IMPROVED BALTIMORE WHITE SPINE

This is the best Cucumber for early planting, because it will retain its green color longer than any other sort. It is of good size and shape, and the popular variety with truckers around Baltimore and Norfolk, as well as the growers from Virginia to Florida. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

EXTRA EARLY WHITE SPINE.—A strain of White Spine which has been improved through careful selection, with a view to use for forcing in hothouses and frames; also elegant for field culture. Our stock produces handsome, dark-colored fruits, which retain their color longer than other sorts. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

ARLINGTON WHITE SPINE.—A favorite extra early variety, of desirable size, handsome shape, dark green color, holding its color longer than most others. Good shipper and sells well. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

EARLY FORTUNE CUCUMBER.—One of the earliest and best dark green White Spine Cucumbers. Extremely early, and beautiful shape. Good for market gardeners, truckers or private family; in fact, any one who likes a dark green white spine cucumber it cannot help but please. Fine for Southern growers, as it stands shipping remarkably well. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 40c. $\frac{1}{2}$ lb., 65c. Lb., \$1.25.

JERSEY PICKLING.—This is the most popular sort with the market gardeners around Baltimore and Philadelphia for pickling. Said to green better than any other variety. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 30c. Lb., \$1.00.

IMPROVED LONG GREEN

The skin is of a deep green, and the flesh is solid, crisp and of fine quality. We have the very best strains of this variety and recommend it as much the best cucumber of all, and the variety every one should plant. The best known and most popular variety for general use. Is vigorous and productive, and forms fruit fit for use almost as early as the shorter varieties. The mature fruit is almost 12 inches long. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ lb., 35c. Lb., \$1.25.

CHICAGO PICKLING.

Very Popular with Chicago Market Gardeners, and Extensively Grown in That Vicinity.

Fruit medium length, pointed at each end, with very large and prominent spines; color deep green. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 30c. Lb., \$1.00.

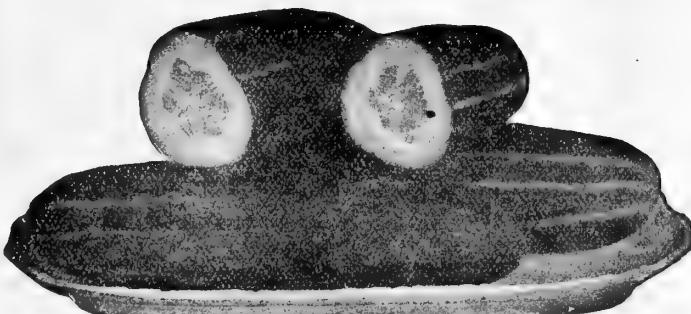
BURR, OR WEST INDIA GHERKIN.

An extremely small fruited variety, grown exclusively for pickles. It has no value for slicing. Is very prickly, but tender and crisp if picked when young. Seed germinates slowly. Pkt., 5c. Oz., 20c. $\frac{1}{4}$ lb., 60c. Lb., \$2.00.

LONG GREEN TURKEY.

A very showy and excellent sort. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 35c. Lb., \$1.25.

CUCUMBERS---CONTINUED



EARLY GREEN PROLIFIC.



EVER-BEARING CUCUMBER.



EARLY CLUSTER CUCUMBER.

GREEN CURLED ENDIVE

Is One of the Best Salads for Fall and Winter Use. One Ounce of Seed to 150 Feet of Row.

For early use, sow as soon as the ground can be worked in the spring, in drills 15 inches apart, and then thin plants to 6 or 8 inches in the row. To blanch the leaves, gather them carefully together when perfectly dry and tie them with matting or soft fibrous material. Another method is to invert flower pots over the plant. The leaves are very highly esteemed for use as salads.

GREEN CURLED

The best sort in use. Useful as a salad, and also used for garnishing.

Pkt., 5c. Oz., 15c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

Early Green Prolific

A very productive variety, having fruits of good length and handsome form. Desirable for producing pickles of medium size and of fine quality when sliced for the table.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 30c. Lb., \$1.00.

Ever-Bearing Cucumber

This variety is unique, and will prove valuable both for the table and for pickling. Is of small size, very early, enormously productive and extremely valuable as a green pickler. The peculiar merit of this new Cucumber is that the vines continue to flower and produce fruit until killed by frost, whether the ripe Cucumbers are picked off or not, in which respect it differs from all other sorts in cultivation.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

CUMBERLAND

A new and distinct variety. Said to have originated from crossing the Parisian Pickling and the Early White Spine. It certainly has the good qualities of each of these sorts. The fruits are large, symmetrical, dark green, covered with innumerable small white spines, and are of prime quality for slicing. The vine is vigorous, wonderfully prolific, and continues in bearing much longer than most sorts.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

EARLY CLUSTER

A short, prickly variety, bearing in clusters near the root. A good bearer. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

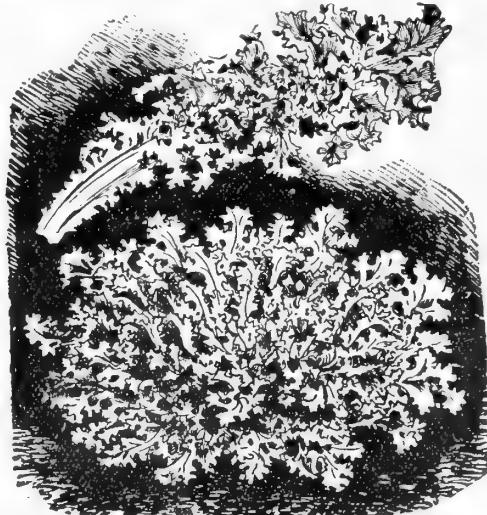
JAPANESE CLIMBING CUCUMBER

It bears abundantly throughout the season, while the climbing habit enables the hanging fruit to grow perfectly straight, from 12 to 16 inches in length; the Cucumbers are thick, tender and of delicate flavor; flesh white, skin dark green, turning to brown, and netted when ripe.

Pkt., 10c. Oz., 15c. $\frac{1}{4}$ lb., 40c.

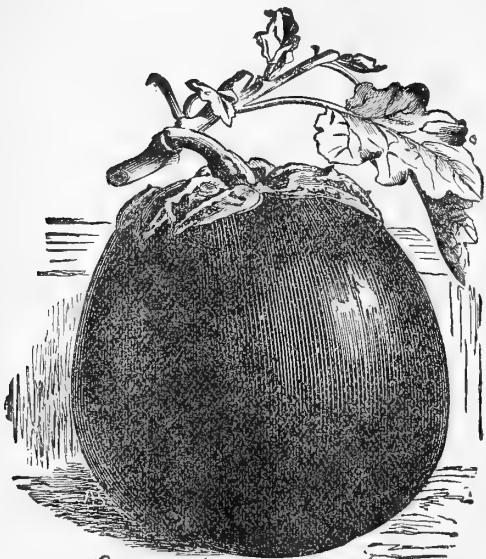
TELEGRAPH (English Forcing)

Should be grown in hotbeds where the temperature does not fall below 65 degrees at night. Pkt., 25c.



GREEN CURLED ENDIVE.

BALTIMORE



EGG PLANT

EGG PLANT

CULTURE.—Sow the seed in hot-beds early in March. When three inches high pot the young plants, using small pots, and plunge them in the same bed so that the plants may become stocky. They can be planted out from the pots when the season becomes sufficiently warm in May or June, or they can be transplanted into a second bed to make them strong until the weather is warm enough to transplant about three feet apart each way in thoroughly-worked and well-enriched soil. Draw the earth up to the stems when about a foot high. Egg Plant Seed will not vegetate freely without a strong, uniform heat, and if the plants get the least chilled in the earlier stages of growth they seldom recover. Therefore, repeated sowings are sometimes necessary. Care should be observed in cutting the fruit so as not to disturb the roots of the plants. **One ounce will produce about 1000 plants.**

BLACK BEAUTY EGG PLANT.—The earliest of all large fruited Egg Plants, and produces fruit quite as large as the **NEW YORK PURPLE** in 10 days' less time. The fruit is symmetrical in shape, of uniform size, of a dark rich purple color, which does not fade or change to lighter color at blossom end like some other varieties. Just the variety for the market gardener and trucker for early spring trade. **Pkt., 10c. Oz., 45c. $\frac{1}{4}$ lb., \$1.75. Lb., \$6.50.**

NEW YORK IMPROVED LARGE PURPLE EGG PLANT.—This market garden variety has plants of strong growth, and is very productive, producing plants of large size and fruits of smooth, deep purple color until frost. **Pkts., 5c. and 10c. Oz., 40. $\frac{1}{4}$ lb., \$1.50. Lb., \$6.00.**

THE FLORIDA HIGH-BUSH EGG PLANT.—Is in great demand by Southern truckers. It has a very vigorous growth and remarkably hardy. The plant grows very erect and holds the fruits clear of the ground. **Pkts., 5c. and 10c. Oz., 40c. $\frac{1}{4}$ lb., \$1.50. Lb., \$6.00.**

BALTIMORE EGG PLANT.—This is decidedly the best and most profitable Egg Plant in cultivation. It is large, thornless, of beautiful shape and handsome purple color. We have never seen finer specimens of Egg Plant than those grown from our seed. When inspecting the field of Egg Plants growing for seed we were surprised at the regular size and uniform, handsome color of the fruit all over the field.

Pkt., 10c. Oz., 40c. $\frac{1}{4}$ lb., \$1.50. Lb., \$6.00.

KALE

One Ounce of Seed Will Sow a Drill of About 200 Feet.

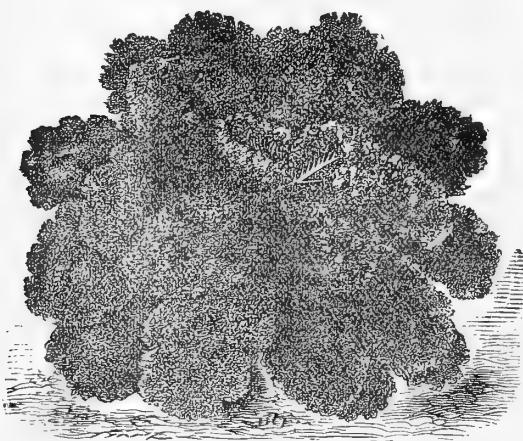
The Kales are more hardy than Cabbage, and make excellent greens for winter and spring use, and are improved by frost. For early spring use, sow broadcast in September and protect during winter. It must also be sown in April or May for later use.

DWARF GREEN GERMAN KALE.—This variety sow in September broadcast, and gather in early spring, like spinach. It may also be sown early in the spring for later use. **Pkt., 5c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.**

EXTRA CURLLED NEW AMERICAN KALE.—This is an extra curled, long-standing variety of a beautiful green color; stands the winter well, and will stand longer in the spring before going to seed than any other variety. **Pkt., 5c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.**

NEW IMPERIAL CURLLED LONG-STANDING KALE.—**Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.**

NORFOLK.—A variety used by the truckers of Norfolk for shipment North. Light green color and leaves much curled. **Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 50c. Lb., \$1.50.**



EXTRA CURLLED NEW AMERICAN KALE.

KOHL RABI

1 OZ. OF SEED TO 100 FEET
OF ROW.

WHITE VIENNA



BULB LIGHT GREEN.
FLESH WHITE.
VERY RAPID IN GROWTH.
EARLY MATURITY.
FINE IN TEXTURE, and
SYMMETRICAL IN FORM.
SUPERIOR.

Pkts., 5c. and 10c.
Oz., 20c. $\frac{1}{4}$ lb., 60c.
Lb., \$2.00.

IMPROVED KOHLRABI.—**Pkts., 5c.**
and 10c. Oz., 15c. $\frac{1}{4}$ lb., 60c. $\frac{1}{2}$ lb.,
\$1.00. Lb., \$2.00.

LEEK

1 OZ. OF SEED TO 150 FEET OF ROW.

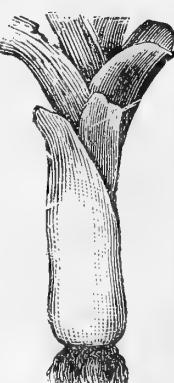
Select good Onion soil, manure liberally, plant in April in drills 6 to 8 inches deep, and 18 inches apart, and thin to 9 inches apart in the drill. Gradually draw the earth around the plants until the drills are filled level with the surface. Draw for use in October. To be used in soups or boiled as Asparagus.

EXTRA LARGE MAMMOTH.—A large and strong plant; hardy. The best variety for general culture.

Pkt., 5c. Oz., 20c. $\frac{1}{4}$ Lb., 70c. Lb., \$2.50.

MUSSELBURGH.—**Oz., 20c. $\frac{1}{4}$ Lb., 70c.**
Lb., \$2.50.

LARGE ROUEN.—**Pkts., 5c. and 10c. Oz.,**
20c. $\frac{1}{4}$ Lb., 70c. Lb., \$2.50.



LETTUCE

Lettuce requires a rich and rather moist soil. The rows should be about 12 inches apart, and the plants thinned to 10 or 12 inches apart for the leading varieties. The more rapid the growth, the better the quality. Some varieties are peculiarly adapted for early culture, others for summer growth.

G. & T. GO'S WHITE SEED SUMMER LETTUCE

The Best Summer Lettuce Ever Introduced.—This variety, introduced by us recently, has exceeded our expectation. Those who purchased it were delighted with their crops, and came back for more seed. This Lettuce will stand the summer heat better than most sorts, and makes magnificent heads. We expect this sort to grow in favor wherever known. It has a beautiful green color; head solid; light leaves, nicely crinkled; very tender, and of most excellent flavor. Pkt., 5c. Oz., 20c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

G. & T. CO'S SUMMER LETTUCE (Black Seed).

This Lettuce is becoming very popular among gardeners for summer use. It produces a splendid large, solid head, of the Cabbage type, remaining a long time in prime condition without going to seed; in fact, it is often necessary for the seed growers to slit open the head in order to allow the seed stalk a chance to develop. It is of a light green color, fine quality, crisp, tender, and nearly every plant will make a fine, solid head in the hottest weather, when other varieties refuse even to grow. Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

IMPROVED NEW YORK, OR "WONDERFUL."

Plants of extra large growth, producing heads of immense size under favorable conditions. Inner portion is beautifully blanched and stands for a considerable time before running to seed. Outer leaves a deep, rich green. Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 70c. Lb., \$2.50.

CALIFORNIA CREAM BUTTER LETTUCE.

This is fairly well known, and has given good results with the growers. Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

MAY KING

A very early new variety, forming fine hard heads within a few weeks after planting. It is medium sized, light green, with buttery but crisp heads. There is just a faint tint of brown on the head.

We have had no end of praise from our friends and customers who have tried this variety. It is essentially a spring sort, and does well all summer. Being of rapid growth and quick heading, it is especially recommended for home garden, and is universally esteemed. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

"ICEBERG" LETTUCE.

The heads are large, crisp, solid and tender. Pkts., 5c. and 10c. Oz., 15c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

EARLY PRIZE HEAD (Seed White)

A large, clustering, non-heading lettuce, most excellent for the home garden and undoubtedly the most easily grown variety in cultivation. It is too tender, however, to stand shipping or handling on the market. The leaves are finely curled and crumpled, bright green tinged with brownish red, and are very crisp, tender and sweet. Pkt., 5c. Oz., 15c. 2 Oz., 25c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

EARLY WHITE CABBAGE, OR BUTTER.

A broad-leaved, vigorous-heading sort; white, showy and desirable. Pkt., 5c. Oz., 20c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

EARLY CURLLED SIMPSON.

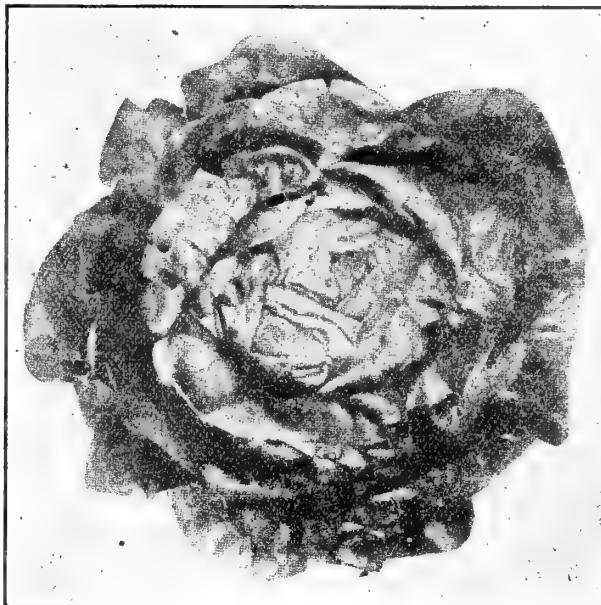
Black seed. Very early; excellent for salads; forms a compact mass of leaves. Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

TENNIS BALL.

Black seed. A favorite forcing variety; a very hard head. Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

ROMAINE OR WHITE PARIS COS

The best of the Cos or celery varieties. Forms a large light-green plant with the head well folded and quite solid. Cos lettuce is also called Romaine, and is very popular with our foreign population, for it is highly prized in England and France, while little known to our own people. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.



U. S. SUMMER LETTUCE.



ROMAINE, OR WHITE PARIS COS LETTUCE.

LETTUCE---Continued

BALTIMORE CABBAGE LETTUCE

G. & T. CO.'S TRUE STOCK.

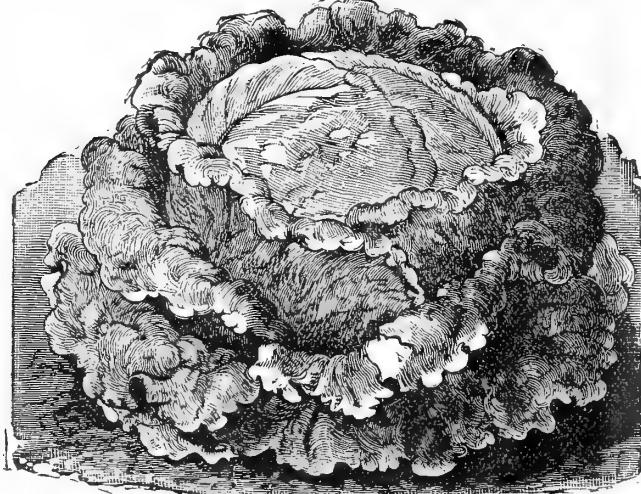
Large Heads, Beautiful Heads, Solid Heads;
Stands Heat Well. Best of all for
FALL PLANTING.

This new Lettuce, which we introduced a few years ago, and claimed to be one of the best ever put on the market, and which produced such a sensation among the large growers who tried it, still holds a high place among lettuce. As soon as the growers discovered its merits they came for more seed, and recommended it to all their friends; these, in turn, were delighted with their crops, as the result more than justified all we claimed for it. A grower at Gardenville, Md., says: "I had 3000 heads of your Baltimore Cabbage Lettuce, and they all headed but one; they are slow to run to seed." The heads are large and solid; color pretty light green, and very slow to seed; in fact, it is just what the truckers and gardeners want. A large trucker in New Jersey writes: "The Baltimore Cabbage Lettuce I had of you was certainly very fine." Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

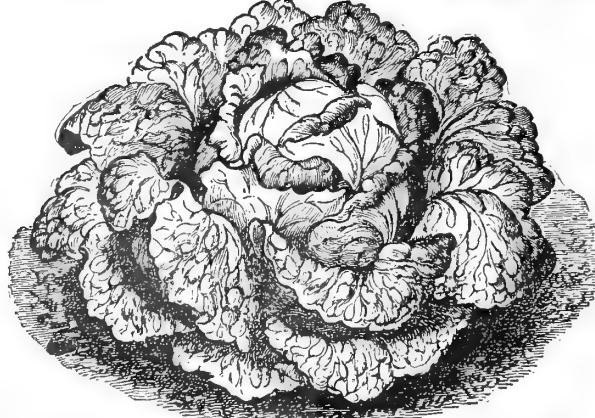
LARGE LOAF LETTUCE.

This is so well known to truckers and gardeners around Baltimore and Norfolk that for them it scarcely needs description. For the benefit of those who are not acquainted with it, would say it makes large, compact heads, is of beautiful light green color, very tender and crisp. This is unsurpassed for frame use, and is also an excellent outdoor lettuce for fall or early spring.

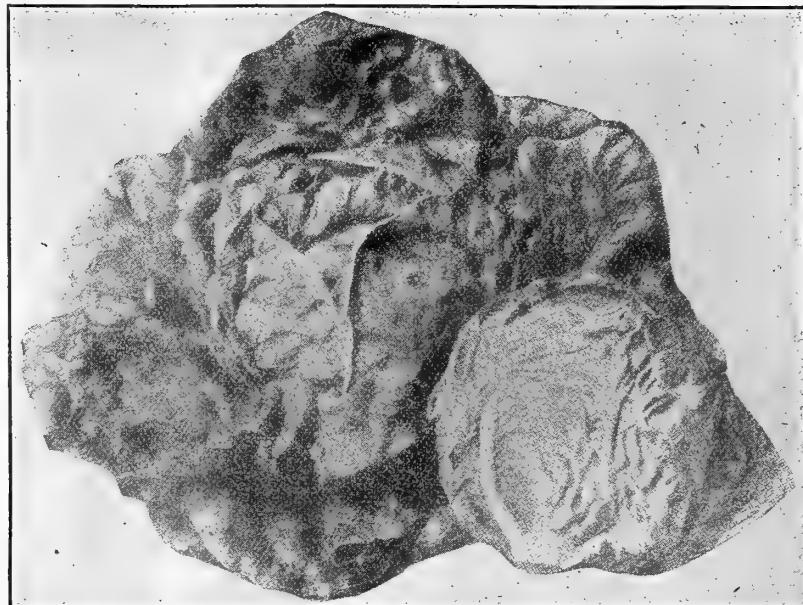
Pkt., 5c. Oz., 20c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.



LARGE LOAF LETTUCE.



BIG BOSTON.



BALTIMORE CABBAGE LETTUCE.

MAMMOTH BLACK-SEEDED BUTTER LETTUCE.

A strain of large, smooth-leaved, head lettuce, forming very large, solid cabbage-like heads of thick, brittle leaves, the inner ones becoming very white, tender and fine flavored.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

BALTIMORE OAK LEAF.

This lettuce will resist the heat of summer and stand longer before running to seed than any variety we have ever known. It makes a large, solid head, and is very popular with those who know it.

Pkts., 10c. Oz., 20c. $\frac{1}{4}$ lb., 50c. Lb., \$1.50.

BIG HEAD LETTUCE.

The "Big Head" is certain to please market gardeners and truckers, because it always produces large, salable heads. It is very solid and crisp, of tender quality, which makes it attractive. Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

HANSON.

A variation of the Indiana, forming a half-closed head.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

BOSTON MARKET.

White seed. A celebrated variety in New England, of good heading habit; small, early and compact; quite desirable.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

GRAND RAPIDS.

This variety is largely grown for shipment, and is considered by many the best loose-headed Lettuce for forcing under glass. Leaves medium size, of light, yellowish green color, much crimped and frilled, thin, but of very upright growth; crisp, tender and of good quality. Owing to its upright habit, it may be planted very closely. It is of extremely rapid growth; not very liable to rot; will stand without spoiling a week to ten days after it is fit to cut, and retains its freshness a long time after cutting.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

DEFIANCE.

Stands summer heat better than any other variety; one of the finest large-growing varieties. It forms very large, solid heads, so firm they have to be cut open to allow the flower heads to come through.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

SALAMANDER (Black Seed).

An excellent sort for spring or summer use; forms good-sized heads of excellent quality.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 30c. Lb., \$1.00.

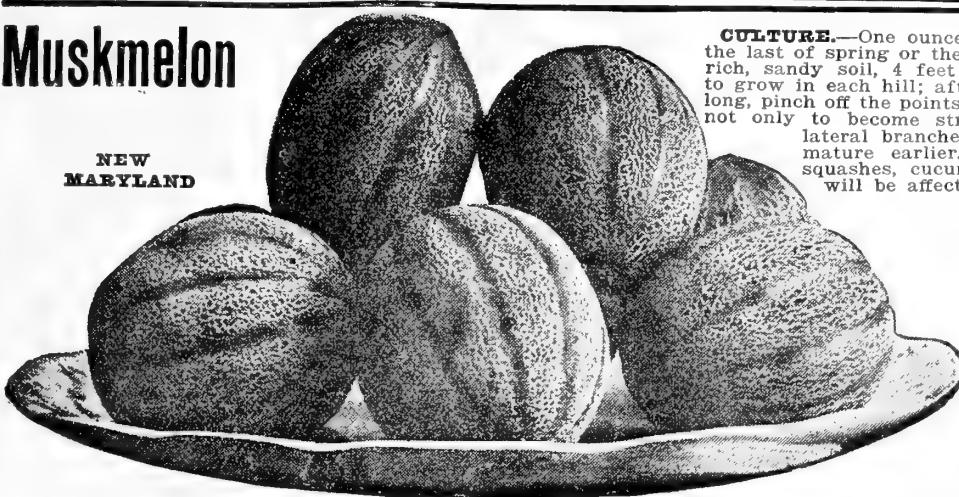
BIG BOSTON.

The same in color, shape and general appearance as the Boston Market, double the size. A most desirable sort either for forcing in cold frames or planting in open ground. Is popular with truckers, as it makes large, solid, salable heads. Very highly recommended by those who have tried it.

Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.

Muskmelon

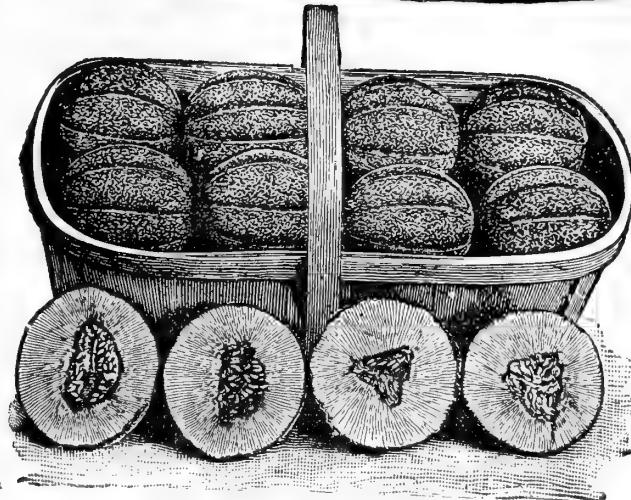
NEW MARYLAND



CULTURE.—One ounce of seed to 50 hills. Sow about the last of spring or the first of summer in hills of light, rich, sandy soil, 4 feet apart, allowing but three plants to grow in each hill; after they have grown about a foot long, pinch off the points of shoots, which causes the vines not only to become stronger, but makes them produce lateral branches and prove more productive and mature earlier. It should not be grown near squashes, cucumbers or pumpkins, as the flavor will be affected in consequence.

NEW MARYLAND CANTALOUE.

The latest acquisition to our collection of muskmelons. It is earlier, larger and cuts better than the Rocky Ford. Flesh is green, of fine flavor and heavily netted, making it the most attractive melon on the market. A sure moneymaker. Our truckers around Baltimore will have no other after planting our New Maryland. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ lb., 40c. Lb., \$1.25.



ROCKY FORD CANTALOUE.

ROCKY FORD MELON

This has become one of the most popular of small or basket melons, largely owing to the fact that growers in the **Rocky Ford** region pack and ship their fruit in a most attractive manner. The fruit is oval, slightly ribbed, densely covered with coarse netting. Flesh thick, green, very sweet and high-flavored.

We have an exceptionally fine stock of this variety grown from choice selected specimens. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 35c. Lb., \$1.00.

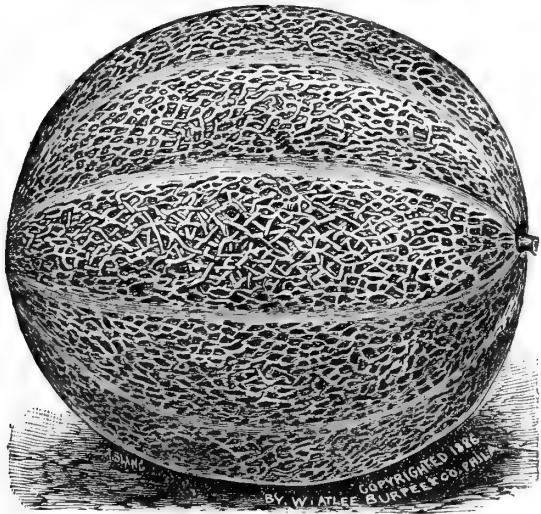
Baltimore Nutmeg Cantaloupe

The Old Standard Variety That Has Found Favor Wherever Grown.

The stock seed of this splendid melon was secured from a trucker who enjoys the reputation for raising the finest Cantaloupes that come to the Baltimore market. The writer also tested the fruit, and found it to be of excellent flavor. It is green-fleshed, and the rind is handsomely netted. It is well known and popular with the truckers and market gardeners of Baltimore, Washington, Norfolk and other places—in fact, it is a leading sort all over the country. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 35c. Lb., \$1.00.

IMPROVED JENNY LIND.

A small, early variety of surpassing good quality, highly recommended for family garden. We consider this the most delicious Cantaloupe we have ever eaten, and while the fruit is small, it is an abundant bearer. A market gardener having this sort for sale would in a short time have no difficulty in disposing of all he could raise. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 35c. Lb., \$1.00.



BALTIMORE NUTMEG.



EARLY NETTED GEM.

Meat, salmon color, exceedingly sweet and delicious; very early and prolific. One of the best for family use. Its appearance is not attractive, but try it, and you will want it again. Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 35c. Lb., \$1.00.

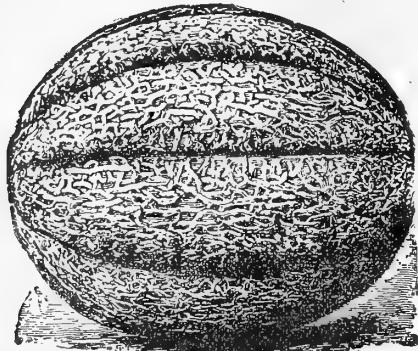
OSAGE, OR MILLER'S CREAM.

Most delicious. The flesh is a rich salmon color, very thick, sweet and rich; rind very thin and finely netted.

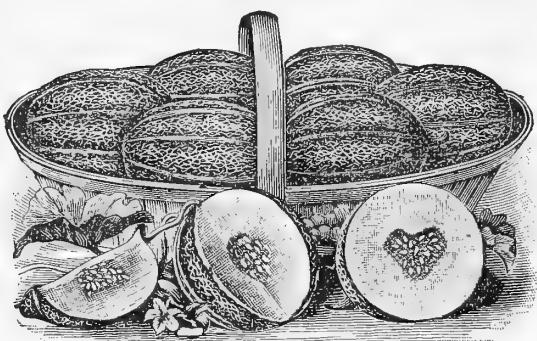
Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 35c. Lb., \$1.00.

EXTENSIVELY grown, and many prefer it to all others for table use. Grows remarkably uniform; thick meat; flesh light green in color, and of fine, luscious flavor; skin green, regularly ribbed and thickly netted; very productive and extra early in ripening; will keep for nearly a week after picking, and is especially suited for shipping in baskets or crates. Pkts., 5c. and 10c. $\frac{1}{4}$ lb., 35c. Lb., \$1.00.

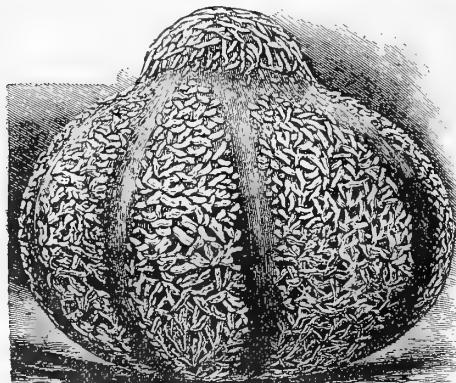
MUSKMELONS--CONTINUED



KNIGHT CANTALOUE



PAUL ROSE



NORFOLK BUTTON

An improved strain of Early Jenny Lind, having a nub or button on the blossom end, which gives it a distinction over all other varieties. It is very early, of remarkably fine texture and delicious flavor, and produces fruits of the finest quality. It is extra fine for both home and market use. We are putting the above on the market for the first time, and have but a limited supply of seed. Those who wish to secure a trial order will do well by placing their order at once. Pkts. 5c. and 10c. $\frac{1}{4}$ Lb., 35c. Lb., \$1.00.

EXTRA EARLY HACKENSACK

Netted green flesh and excellent; very showy market variety and an excellent keeper. Ten days earlier than the Old Hackensack. Pkt. 5c. Oz., 10c. $\frac{1}{4}$ Lb., 35c. Lb., \$1.00.

LONG ISLAND BEAUTY—Pkt. 5c. Oz., 15c. $\frac{1}{4}$ Lb., 35c. Lb., \$1.00.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

KNIGHT CANTALOUE

A NEW EARLY CANTALOUE OF SUPERB QUALITY AND AT THE SAME TIME MAKES AN EXCELLENT MARKET OR SHIPPING MELON

This new Cantaloupe has been grown in Anne Arundel county for the past several years, and has created a furore with our truckers, on account of its earliness, productiveness, uniformity in shape and appearance and its fine table qualities. It matures about a week earlier than the regular Rocky Ford, is larger in size and makes a most attractive and salable melon. It has thick, green flesh, shading to orange at the center. The fruits are oblong in shape, well ribbed and well netted. It is a leader, both for planting for home use and market and for shipping. Its early maturity, together with its fine qualities, are strong points in its favor. Pkt. 5c. Oz., 15c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

PAUL ROSE.—In this new sort are combined all the good qualities of the Netted Gem and the Osage, the varieties from which it originated. The fruit is oval, about 5 inches in diameter, and in shape and general appearance similar to the well-known Netted Gem or Rocky Ford. The firm flesh is a rich orange-red color, like that of the Osage, but even sweeter and higher flavored, retaining its good qualities quite to the rind. We think it really has no equal as a market melon for professional melon-growers, and it is one of the very best sorts for the home garden. Pkt. 5c. Oz., 10c. $\frac{1}{4}$ Lb., 35c. Lb., \$1.00.

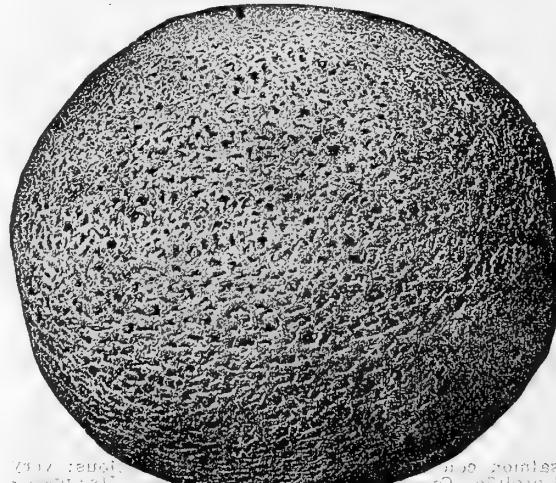
ANNE ARUNDEL CANTALOUE

(Original Stock.)

This handsome melon, introduced by us several years ago, was for years a special favorite with a number of the leading growers of Anne Arundel county, Maryland. This county is justly celebrated as growing the finest Cantaloupes in the country. We might almost say the finest in the world. Knowing its value, we selected the stock and placed it before our customers. It has met every promise we made for it upon its introduction. Pkt. 5c. Oz., 10c. $\frac{1}{4}$ Lb., 35c. Lb., \$1.00.

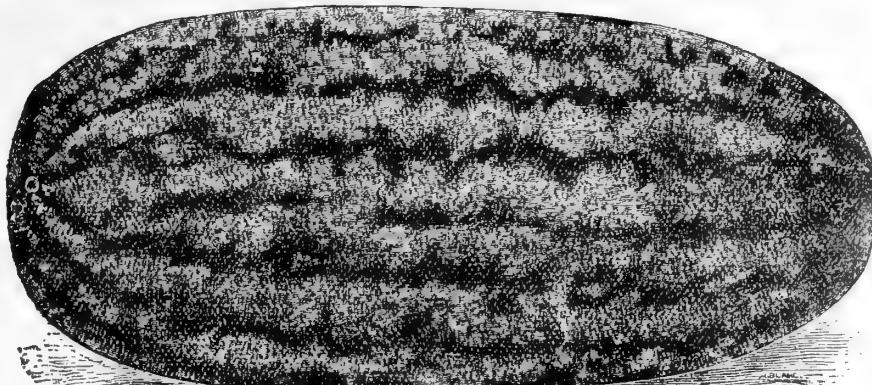
EDEN GEM OR NETTED ROCK

One of the handsomest melons in our list. Splendid shape and thorough netting and absence of deep spaces between the ribs, indicating strong shipping properties. The flesh is unusually thick, the seed cavity very small, the flavor exquisite. A heavy yielder, the melons very uniform, but few run too large, and still fewer too small. For shipping we recommend it highly; also for home growers. Pkt. 5c. Oz., 10c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

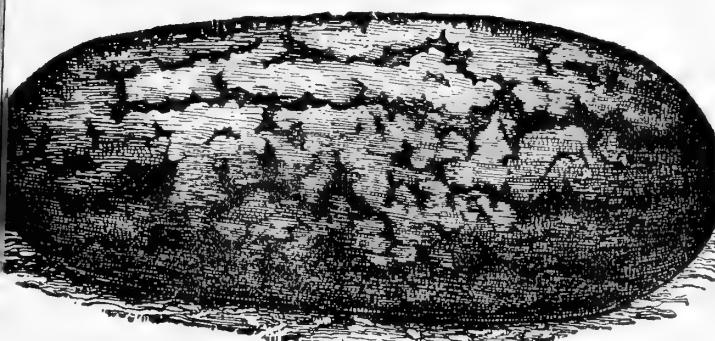


Netted Rock or Eden Gem Cantaloupe

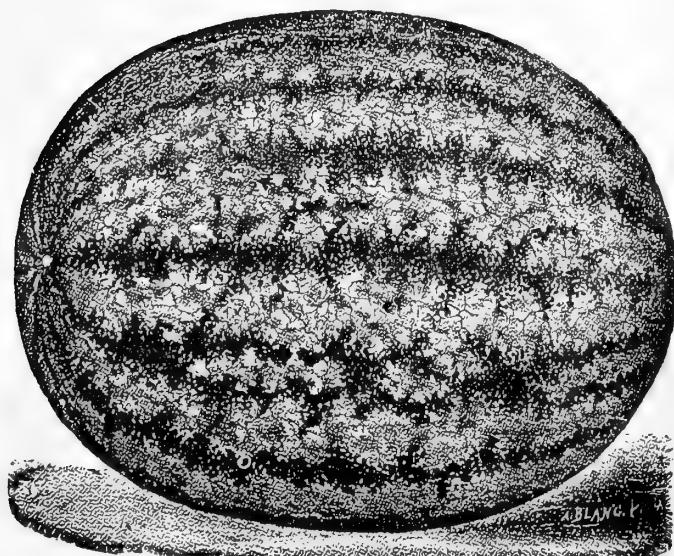
WATERMELONS



LORD BALTIMORE.



FLORIDA FAVORITE.



DUKE JONES.

CULTURE.—One ounce of seed to 30 hills. Watermelons require a rich, sandy soil for best development. Cultivate the same as for cantaloupes, except that the hills should be eight or ten feet apart.

Lord Baltimore

It is very early, of oblong shape, and the flesh is of handsome crimson color, deliciously sweet and extending close up to the rind. It has a thin, hard rind, beautifully mottled light and dark green. Its perfect shape, faultless color, fine texture and excellent flavor combine to make it one of the very best melons that grows. It is a good shipper, and beats all others as a seller.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 25c. Lb., 90c.

FLORIDA FAVORITE

This we consider one of the richest and sweetest flavored melons grown, of medium size and prolific. The best of all for family garden. It is now very popular with the truckers and melon-growers of Maryland and Virginia, and sells readily in the Baltimore markets.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

McIVER'S SUGAR WATERMELON.

In outward appearance it somewhat resembles the old Rattle-snake. The quality is much superior. It is an extremely productive and hardy variety.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

FORDHOOK EARLY.

This is a very early variety, growing to a good size; color, medium green; form, nearly round; seeds, white; flesh, bright red and very sweet.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

BLACK BOULDER.

It is enormously productive, reaching a mammoth size, with rich, dark green skin. It cuts equal to any melon we have ever eaten, and its shipping qualities are phenomenal, no other melon equaling it in tough skin and rind; in this respect even superior to the Kolb Gem.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

DARK ICING.

An extra early and extra good melon for home use and nearby market. One of the most delicious of melons; rich red and sugary to the very thin rind.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

TRIUMPH WATERMELON

Is very prolific, very early and of uniformly large size. The rind, like Duke Jones, is of dark green color; the seed is exactly the same color as that of Kolb Gem.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

GRAY MONARCH OR LONG WHITE ICING.

This distinct melon is without a doubt one of the largest of all, frequently attaining a weight of 70 pounds and over. The skin is a mottled gray color, shape long, flesh bright crimson, and of sweet, delicious flavor. It is also a fine shipper, carrying well long distances and bringing very high prices.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 25c. Lb., 90c.

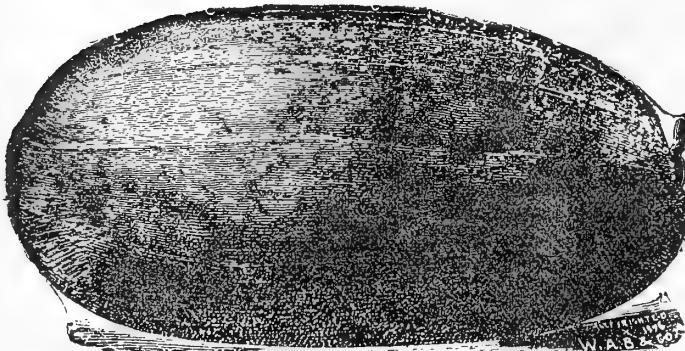
DUKE JONES WATERMELON

In shape the **DUKE JONES** resembles very closely the Kolb Gem. The rind is darker green in color, with indistinct irregular stripes of dark and light green alternating; in general appearance it is a dark green melon. It averages very large in size, comparatively no small melons; is very productive; it is also very early in maturing.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

WATERMELONS---CONTINUED

TOM WATSON (NEW)



TOM WATSON.

A recent introduction. A large oblong melon, dark green skin, with thin, tough rind, which gives it excellent shipping qualities. Melons are produced from 18 to 24 inches long and from 8 to 12 inches in diameter. Flesh, deep red, crisp, melting and of the finest flavor. Heart large, with little or no core. One of the best eating melons known.

Pkts., 5c. and 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

RATTLESNAKE WATERMELON.

Large, oblong, striped and mottled; flesh bright red; a good shipper; a favorite variety in the South.

Pkts., 5c. and 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

DIXIE.

It is earlier and larger than the well-known and popular Kolb Gem, and in color a darker green, with beautiful stripes, making it one of the handsomest melons on the market. Flesh deep red, sugary and melting.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

SWEETHEART.

An entirely distinct and handsome new Watermelon. Vine vigorous and productive, ripening early. Fruit large, oval, very heavy, uniformly mottled light and dark green. Flesh bright red, solid and very sweet.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

KLECKLEY'S SWEETS.

Skin dark green, thin rind, flesh scarlet, very solid, firm and most luscious quality for the home market or family garden. It is decidedly one of the best.

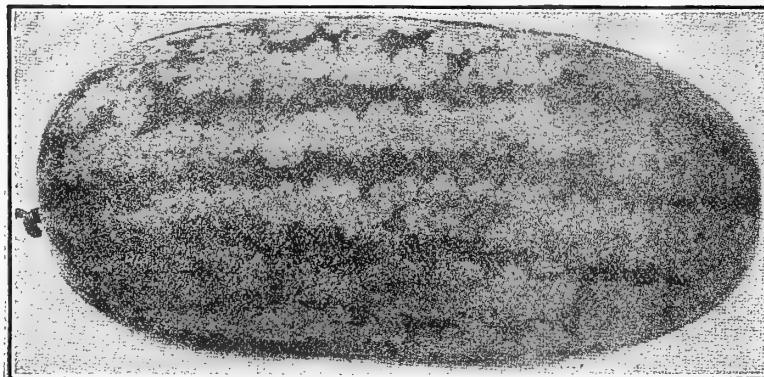
Pkt., 5c. Oz., 10c. $\frac{1}{4}$ lb., 30c. Lb., 90c.

BLUE GEM.

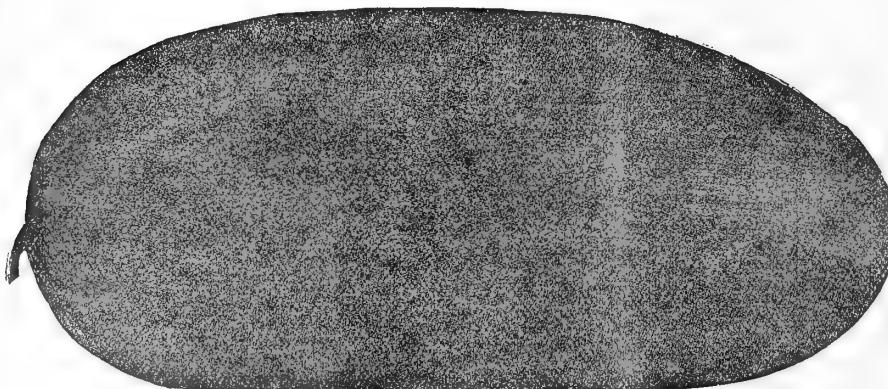
This splendid Melon resembles the Kolb Gem in shape, and is one of the very best shippers and table melon; is of a dark bluish color, with small grayish stripes. Is much superior to the Kolb Gem. Very productive, and is handsome and showy.

A grower in Dixie (Georgia) says: "If you want a shipper that will go around the world, you can safely select the **BLUE GEM**."

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.



GEORGIA RATTLESNAKE.



NEW WATERMELON—"IRISH GREY."

IRISH GREY

The newest and best in watermelons, recently introduced. Considered by the best growers and shippers to excell all other varieties. Fine flavor, red to rind, dark tough skin; long keeper and excellent shipper.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

KOLB'S GEM.—This is one of the largest, most productive, best keeping and best shipping watermelons grown. Sells readily at the highest market prices. In fact, it is so well known that it speaks for itself. Our stock of this comes direct from the original grower. Special prices on large quantities.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

BLACK STRIPED KOLB GEM WATERMELON.—The size of this fruit is uniformly large; shape, oval; color, a rich dark green, with fine stripes of lighter shade; much darker and richer than the old well-known **Kolb Gem**. The exceptionally strong rind makes it an excellent shipper.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

CITRON—For Preserves. Fruit round and handsome. Used in making preserves only.

Pkts., 5c. and 10c. $\frac{1}{4}$ lb., 35c. Lb., \$1.00.

ENGLISH MILL TRACK MUSHROOM SPAWN



Lb., 25c. By Mail, 30c. Lb., Postpaid. 10 Lbs., \$2.50. 100 Lbs., \$20.00, by Freight or Express.

CULTIVATION

The cultivation of the Mushroom is a very simple matter and requires only ordinary intelligence and care. The materials needed are fresh horse manure, good soil and live spawn. The manure should not be too short, as it does not combine the necessary qualities. Long strawy litter, plentifully mixed with short manure, makes by far the best beds, as it does not heat too violently, decomposes slowly and retains its heat for a long period. Put in a heap and turn every three or four days to permit the escape of noxious gases and prevent burning. When ready for use it should be as hot as can be borne comfortably by the hand, and should also be moist. Make the beds 3 feet wide at the base, $2\frac{1}{2}$ feet high, and of any desired length. The manure, when in proper condition, should be quickly handled to prevent the loss of heat, and be beaten down to make the heap firm and compact, and covered with long litter. The bed should within a few days warm to a temperature of 110 to 120 degrees. Never spawn a bed when the heat is rising, but always on the decline and under 90 degrees. Have a ground thermometer, and keep it plunged in the bed; by pulling it out and looking at it you can ascertain exactly the temperature of the bed. Should the temperature not exceed 100 or 110 degrees, no alarm should be felt, for if the manure was fresh it will likely produce a good crop. When the heat has decreased to 90 degrees, the bed is ready to receive the spawn, which is done by raising the manure with the hand and inserting pieces of spawn 2 inches square and 9 inches apart each way. At the expiration of a few days the bed may be covered with soil to the depth of about 2 inches. If in a closed cellar or mushroom house, wait about ten days, but if in open shed five days will do. If the soil is poor, add a liberal quantity of bone meal. It requires a period of 5 to 7 weeks before they are ready for use.

TWO POUNDS OF SPAWN ARE SUFFICIENT FOR A BED 3 FEET BY 6 FEET.

Mushrooms can be readily grown in cellars, stables, sheds or pits. Many are successively grown on a shelf in an ordinary cellar, and yield sufficient crops to compensate the grower for his effort. The space under greenhouse benches or stagings will suit them exactly, using materials in the same manner as described.

MUSHROOMS ON PASTURE LAND OR LAWN.

About the first of June take pieces of spawn an inch square and lift the sod with a trowel or spade just sufficient to get a spawn under it, and then press the soil down hard. Set the spawn 1 to 2 feet apart. In a favorable season a crop may be expected in 3 or 4 months from the time of planting.

OKRA, OR GUMBO



Select warm location and rich soil, and plant when the ground becomes warm, in rows three feet apart, thinning plants a foot apart in the row. As the seeds are liable to rot in cool weather, they should be sown thickly. The pods are used to thicken soup, being gathered when young. It is one of the most wholesome vegetables in use.

DWARF OKRA.

This is the preferred kind with the growers; is of dwarf habit and very productive.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c.
Lb., 60c.

WHITE VELVET.

It is very distinct, and the pods are perfectly round and smooth, of an attractive white velvet appearance, and of superior flavor and tenderness. The pods are of extra large size, and produced in great abundance.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 20c. Lb., 60c.

ONION SETS

CULTIVATION FOR SETS.

Have a clean and very rich soil, which should be thoroughly cultivated, or it will not do well enough to pay for the trouble. The most successful growers work their ground several times in the fall to kill out the weeds and get ground in nice condition. Use well-rotted manure freely, and be sure to get the seeds in as early as possible in the spring, no matter if it is ever so cold or unpleasant, and keep the soil mellow and clear of weeds, and if seed is good you will have a large crop of onion sets. On no other condition can you hope for success. Disturb the roots of the onion as little as possible, either in thinning or hoeing, and never hoe earth toward them to cover or hill, as we do most other things.

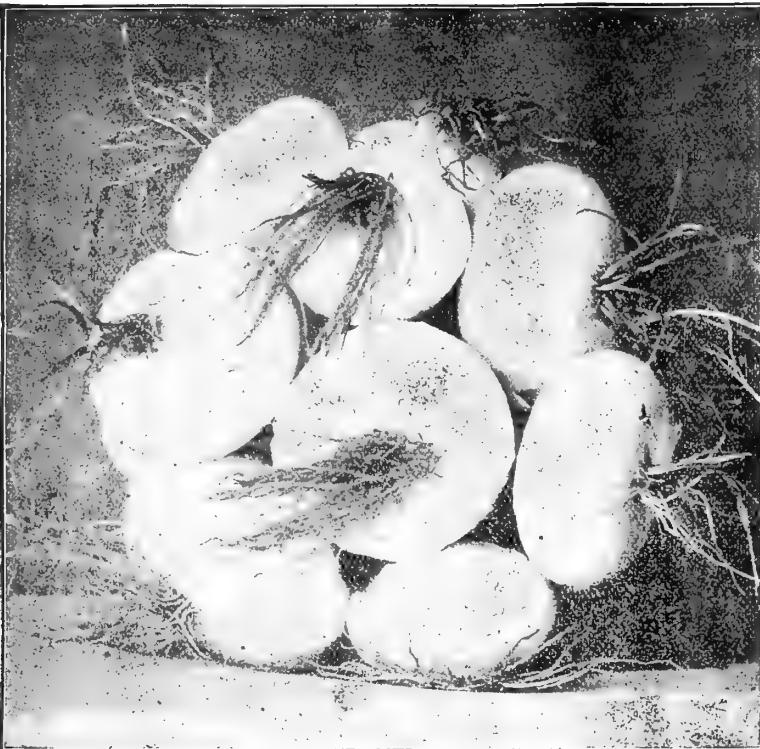
Sow the seed in drills about 12 inches apart. It will require from 40 to 60 pounds of seed to sow an acre.

WHITE—Qt., 25c.; mailed, 35c. YELLOW—Qt., 20c.; mailed 30c. Ask for prices on sets by the bushel. It requires 10 to 15-bushel sets to plant one acre.

ONION SEED

CULTIVATION TO GROW LARGE ONIONS FROM SEED.—The seed should be sown as early as possible in the spring, as they grow much better during the cool weather, and should make most of their growth before the hot weather sets in. Sow 5 pounds of seed to the acre for large onions.

THE NEW ONION CULTURE.—Sow the seed in hotbed and transplant early as possible to open ground. They can be grown very successfully by this plan.



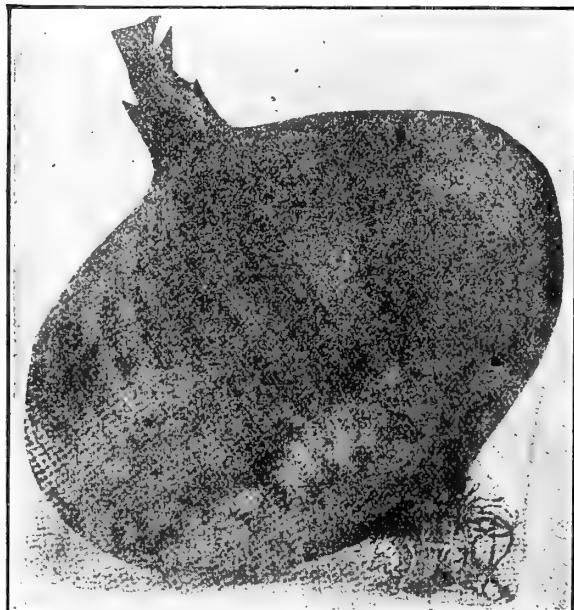
WHITE S. S. ONION.

WHITE SILVERSKIN, or PORTUGAL.—A good variety for family use, skin and flesh pure white, mild flavor and flat shape. The best white onion to grow largely for sets. Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 60c. Lb., \$2.25.

WHITE PEARL ONION.—Earliest of all, growing with all the rapidity of a summer radish. Pearly white, waxy and transparent. Form flat and broad, flavor very mild, and it can be eaten raw almost like an apple. On rich soil it will grow very large. This is an elegant sort to sow for large onions, because of its rapid growth and fine quality. Pkt., 5c. Oz., 25c. $\frac{1}{4}$ Lb., 90c. Lb., \$3.00.

AUSTRALIAN BROWN.—A Valuable Long-Keeping Onion.—This new Onion, introduced into the United States a few years since, has met with wonderful success, and is pronounced the best keeper of all onions. The outside skin is of a deep amber brown, distinct from all other onions, extremely hard and firm, of fine flavor, and will keep almost indefinitely. Australian Brown is the only onion Australian growers will plant. Pkts., 5c. and 10c. Oz., 20c. $\frac{1}{4}$ Lb., 60c. Lb., \$2.00.

WETHERSFIELD LARGE RED.—Well-known and favorite sort. A large yielder and good keeper. Pkt., 5c. Oz., 20c. $\frac{1}{4}$ Lb., 60c. Lb., \$2.00.



YELLOW DUTCH, or STRASBURG.

YELLOW DUTCH, or STRASBURG.—The most popular and best variety for set purposes. Is similar to the Yellow Danvers. Flat in shape, color and size, but as a set onion it has the quality of ripening down earlier and more uniformly. Pkt., 5c. Oz., 20c. $\frac{1}{4}$ Lb., 50c. Lb., \$1.75.

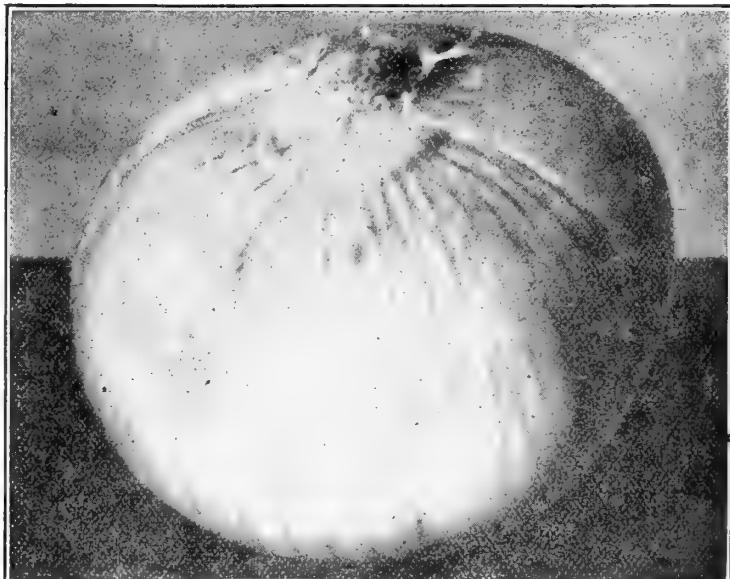
YELLOW GLOBE DANVERS.—A very handsome, round, yellow onion; a large yielder and splendid keeper; the preferred sort with market gardeners and large growers all over the country. We unhesitatingly recommend it for growing either sets or large onions. Pkt., 5c. Oz., 20c. $\frac{1}{4}$ Lb., 50c. Lb., \$1.90.

YELLOW FLAT DANVERS.—A good onion, both for the home garden and for market—combining reliability in ripening with large yield. It ripens more surely in moist locations than do the globe-shaped varieties, as well as earlier. The thin-necked flattened bulbs are quite thick through; light yellow skin; fine-grained, mild, white flesh. Pkt., 5c. Oz., 20c. $\frac{1}{4}$ Lb., 50c. Lb., \$1.75.

YELLOW DANVERS ONION.

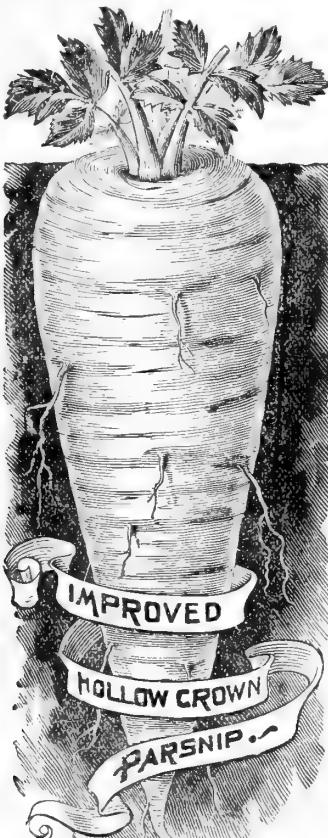
ONIONS--CONTINUED

PRIZE-TAKER.—This is the large, beautiful onion that is seen every fall offered for sale at the fruit stores in Baltimore and other large cities. It has a rich straw color, and is of enormous size. Although of such large size, it is very hardy and an excellent keeper. The flavor is mild and delicate, making the Prize-taker a favorite variety for salads. By sowing this sort early you can raise a large crop of large onions the first season with very little trouble. All that is necessary is good ground, proper cultivation, and not to have them too thick. Those of our growers who have tried this variety have had remarkably fine success. Pkt., 5c. Oz., 20c. $\frac{1}{4}$ Lb., 60c. Lb., \$2.00.



PARSNIP

The Parsnip will nourish best and give the longest, largest and smoothest roots in a very deep, rich soil—one that has been made rich from manure the previous year. Fresh manure makes the roots somewhat ill-shaped. Sow as early in the spring as the ground can be made ready, pretty thickly in drills from 12 to 18 inches apart, and about an inch deep. Thin the plants to five or six inches apart.



HOLLOW CROWN OR SUGAR

The Hollow Crown is superior in quality to all other varieties, and the preferred kind with Baltimore gardeners. The roots are smooth, tender, handsome shape and early. We have the finest stock of Hollow Crown Parsnips that we know of in this country. Pkts., 5c. and 10c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 30c. Lb., 60c.

MUSTARD

GIANT CURLED.—Highly esteemed in the South, where the seed is sown in the fall and used in the spring as a salad. Our stock is the true curled leaf, and produces plants two feet high and of greater breadth, forming enormous bunches.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 15c. Lb., 50c.

WHITE MUSTARD.— $\frac{1}{4}$ Lb., 10c. Lb., 30c.



NASTURTIUM

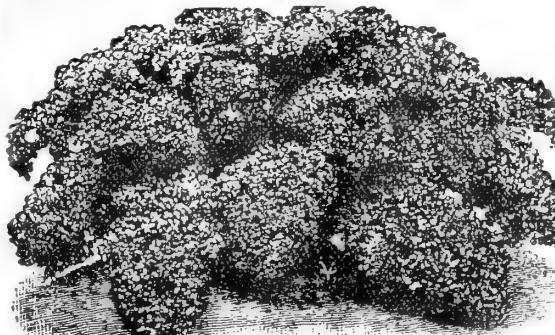
Plant in May, the climbing varieties to cover arbor or fence, and the dwarf for beds or hanging baskets. The leaves are used for salad, and the seeds, when soft enough to be penetrated by the nail, for pickles.

TALL.—Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 35c. Lb., \$1.00.

DWARF.—Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

PARSLEY

SELECT rich soil; sow the seed in drills one foot apart, covering half an inch deep. It would be well to firm the soil with the foot after sowing the seed. As the seed is usually from 15 to 25 days in germinating, it will be necessary to sow early. Thin plants to 4 inches apart when 2 inches high. The beauty of the plant may be increased by several successive transplantings. It is used principally for flavoring soups, etc., and for garnishing in its natural state.

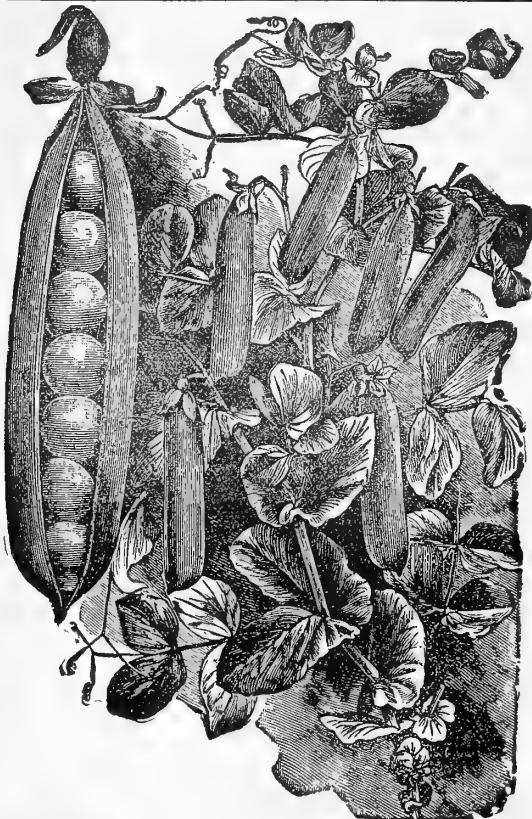


DWARF EXTRA CURLLED.—The most beautiful and valuable variety in use; handsome bright green color; finely crimped, beautifully curled.

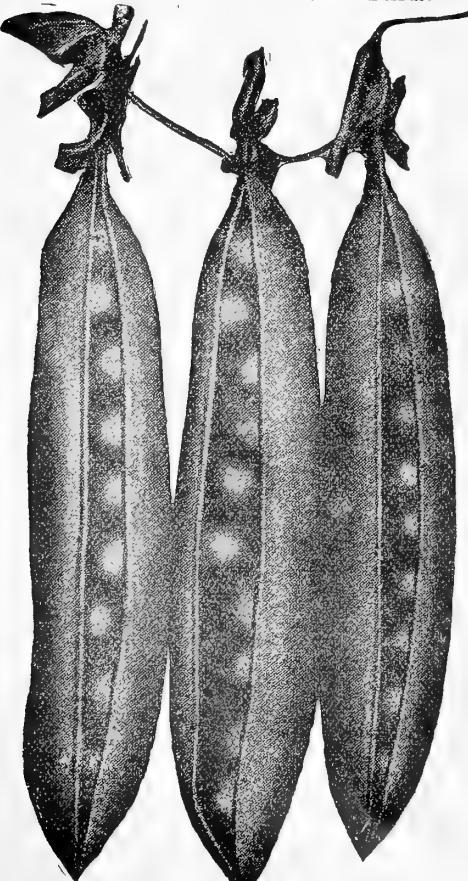
Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 25c. Lb., 80c.

MOSS CURLLED.—A very select crimped variety.

Pkt., 5c. Oz., 10c. $\frac{1}{4}$ Lb., 25c. Lb., 80c.



EXTRA EARLY ALASKA PEAS.



MARYLAND PRIDE PEAS.

PEAS

U. S. FOOD ADMINISTRATION LICENSE NO. G 22972.

NOTICE.—In ordering Peas to be sent by mail, please add 6c. per pound to pay postage. For larger quantities see table on page 1.

The dwarf varieties should be liberally manured; the tall sorts will run too much to vine if heavily manured, it being better to depend on the richness of the land that was previously in good condition. Plant the dwarf in rows two feet apart; those varieties attaining a height of from two to three feet in rows three feet apart, and the rows of the tallest sort four feet apart. Bushing the tall kind when six inches high, on poles set every six or eight feet, with twine fastened to them about four inches apart, will answer finely.

G. & T. Co.'s First Early Peas

(In Sealed Bags, Thoroughly Rogued and Hand-Picked.)

This is the earliest of all and the most profitable early market Pea, because of its early maturity, uniformity of growth, and ripening and its productiveness. It ripens up so evenly as only to require about two pickings to secure the crop. It is grown from selected stock, under our own supervision, and the greatest care is exercised to keep it up to the highest standard of quality. It is a great favorite with the truckers, and is largely used by private families. Our sales of this sort increase annually.

Pint, 30c. Quart, 50c. Peck, \$2.75. Bushel, \$11.00.

NEW LARGE PODDED ALASKA.—In general habit and growth resembles the well-known Alaska. Ripening about three days later, but with much longer and thicker pods. Handsomely shaped, of a beautiful dark green color, which is retained long after other varieties have lost their usefulness. The seed is somewhat wrinkled and dented. We strongly recommend this new Pea to gardeners, truckers and shippers as a most productive and large extra early variety.

Pint, 30c. Quart, 50c. Peck, \$3.25. Bushel, \$13.00.

ALASKA.—Our best rogued and hand-picked stock. Height, 26 inches. The earliest Blue Pea; very uniform in growth and time of ripening. The dark green color of pods makes this a most desirable sort for canners and shippers, as it can be carried long distances without losing color.

Pint, 25c. Quart, 50c. Peck, \$2.75. Bushel, \$11.00.

DEXTER (Genuine Stock).—Thoroughly rogued and hand-picked.
Pint, 30c. Quart, 50c. Peck, \$2.75. Bushel, \$11.00.

RURAL NEW YORKER.—Height, 2½ feet. In maturity it is among the early varieties. Pint, 30c. Quart, 50c. Peck, \$2.75. Bushel, \$11.00.

FIRST AND BEST.—Height, 2½ feet. Grown with special care. One of the early varieties. Pint, 30c. Quart, 50c. Peck, \$2.75. Bushel, \$11.00.

TRIUMPH PEAS.—Pint, 30. Quart, 50c. Peck, \$2.75. Bushel, \$11.00.

PHILADELPHIA EXTRA EARLY PEAS.—Pint, 25c. Quart, 50c. Peck, \$2.75. Bushel, \$11.00.

PEDIGREE EXTRA EARLY.—Introduced several years ago, has steadily increased in favor until now the truckers all want it. Early as Alaska, large pods, white seeded, very prolific. All mature at one time and can be gathered in one picking. Pint, 30c. Quart, 50c. Peck, \$2.75. Bushel, \$11.00.

Prolific Early Market

New. Recently introduced. The finest, largest and most prolific extra early variety. Larger than Alaska, nearly as early, quite as prolific. Handsome pods, which command the highest prices. Just the pea for the trucker, market gardener and family garden.

Pint, 30c. Quart, 50c. Peck, \$3.00. Bushel, \$12.00.

Large Podded Extra Early Sugar Variety

MARYLAND PRIDE PEAS.

Introduced by us last season for the first time, giving universal satisfaction to the market gardeners and shippers. Pods large, of a deep green color and nearly as early as Alaska.

Pint, 40c. Quart, 75c. Peck, \$5.00. Bushel, —.

THOMAS LAXTON.

Habit and growth same as GRADUS, but pods are a deeper green color, square at the ends, having fine flavor.

Pint, 40c. Quart, 75c. Peck, \$5.00. Bushel, —.

GRADUS, OR PROSPERITY—Pale Green Wrinkled.

The most attractive novelty of recent years. Large, handsome pods, well filled, ripening with the earliest and of vigorous habit.

Pint, 40c. Quart, 75c. Peck, \$5.00. Bushel, —.



NOTT'S EXCELSIOR.

PEAS--Continued

UNITED STATES FOOD ADMINISTRATION LICENSE NO. G 22972.

Dwarf Extra Early Variety

NOTT'S EXCELSIOR

It is the best of dwarf wrinkled extra early of recent introduction. The vines are larger and more vigorous than the American Wonder, while the pods are fully one-third larger, containing 6 to 8 fine, large Peas, packed so closely together in the pods that the Peas are always more square than round. The pods are always well filled with Peas, which in sweetness and quality have no superior.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, \$16.00.

AMERICAN WONDER

Very luscious in flavor. Try it. Height, 12 inches. The earliest wrinkled Pea; very productive and sweet. Bette suited to the private than to the market garden.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, \$16.00.

PREMIUM GEM

Height, 15 inches. An improvement upon the Little Gem. A splendid wrinkled dwarf Pea; very luscious in flavor.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, \$16.00.

MCLEAN'S LITTLE GEM

Similar to Premium Gem, but more straggling in growth; pods not so well filled; height, 18 inches; seed, green, wrinkled.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, \$16.00.

EARLY BIRD PEAS

Recently introduced. Hardy, prolific, early. Earlier than Alaska or First and Best. Large podded and very prolific. Fine luscious flavor. Hardiness unsurpassed.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, \$16.00.

Second Early Half Dwarf Wrinkled Varieties

GARDENER'S FAVORITE.

Height, 30 to 36 inches. A wrinkled variety named and introduced by us, and which is constantly gaining friends; of most delicious flavor; prolific bearer, specially suited for the market garden trade. It is also attracting considerable attention with some of our leading canners, as when packed they find the quality to be superior to any other sort.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, \$16.00.

ADVANCER.

Height, 2½ feet. A green wrinkled variety; introduced some years ago, and has always given satisfaction.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, \$16.00.

EVERBEARING.

Vines are about 2 feet high, of a branching character, forming as many as 10 stalks from a single root stalk. Peas large and of fine quality.

Pt., 30c. Qt., 50c. Peck, \$4.00. Bu., —.

YORKSHIRE HERO.

Height, 2½ feet. A wrinkled variety; productive and of very superior flavor.

Pt., 30c. Qt., 50c. Peck, \$4.00. Bu., —.

SHROPSHIRE HERO.

A grand new second early wrinkled Pea, producing long, handsome, well-filled pods in great abundance. Height, 2½ feet.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, —.

ABUNDANCE.

Height, 30 to 36 inches. An excellent half-dwarf, medium early wrinkled variety; pods 3½ inches long, containing 6 to 8 large Peas of excellent quality.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, —.

PRIDE OF THE MARKET.

A medium early dwarf Pea of vigorous habit and very productive. The pods are large, of a medium green color, and contain 7 to 9 Peas of fine quality; 1½ feet high.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, —.

HORSFORD'S MARKET GARDEN.

Height, 2½ feet. A medium early wrinkled variety; highly recommended.

Pt., 30c. Qt., 50c. Peck, \$4.00. Bu., \$16.00.

IMPROVED STRATAGEM.

Height, 2½ feet. A large wrinkled blue Pea of excellent quality; very long, large filled pods. More regular in its growth than the ordinary Stratagem, and in every way superior.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, —.

DWARF GREEN WRINKLED MARROW.

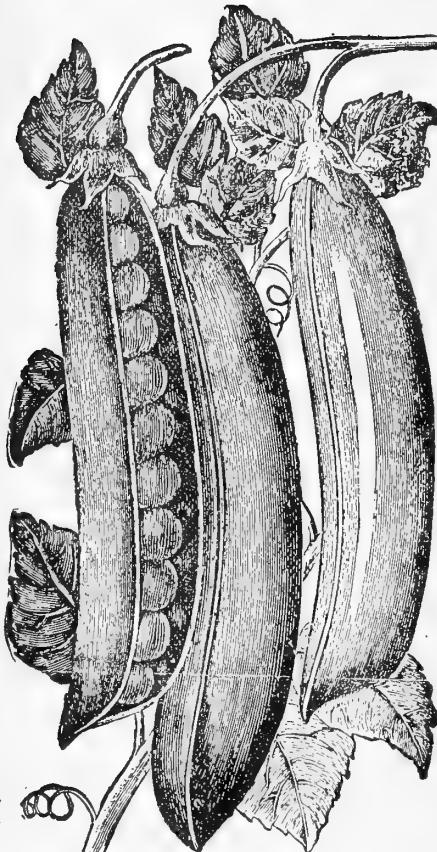
An excellent new wrinkled variety. Large pods and very productive.

Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, —.

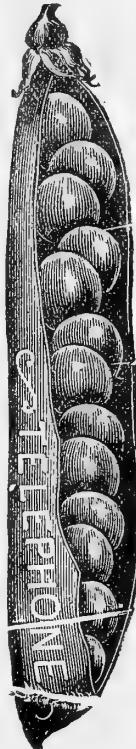
PEAS--Continued

U. S. FOOD ADMINISTRATION LICENSE NO. G 22972.

MEDIUM AND LATE VARIETIES



HEROINE PEAS.



HEROINE PEA.—A medium early, green, wrinkled Pea, and one of the best of recent introduction; large, curved, showy pods; an immense cropper; Peas of finest quality. Height, 2 to 2½ feet. Pint, 30c. Quart, 50c. Peck, \$4.00. Bushel, \$16.00.

CHAMPION OF ENGLAND.—Height, 4 feet. An old favorite, rich flavored and very productive. Pint, 40c. Quart, 75c. Peck, —. Bushel, —.

MELTING SUGAR (Edible Pods).—This variety is ahead of all other Sugar Peas, not only in size of pod and prolific bearing, but also for its delicious flavor. It grows to the height of 5 feet, bears a profusion of very large, broad handsome light green pods, which are so brittle that they snap without any strings. Pint, 40c. Quart, 75c. Peck, —. Bushel, —.

TALL GRAY SUGAR (Edible Pods).—Cooked in the pods same as Snap Beans. Pint, 40c. Quart, 75c. Peck, —. Bushel, —.

DWARF GRAY SUGAR (Edible Pods)—Quite a favorite. Pint, 40c. Quart, 75c. Peck, —. Bushel, —.

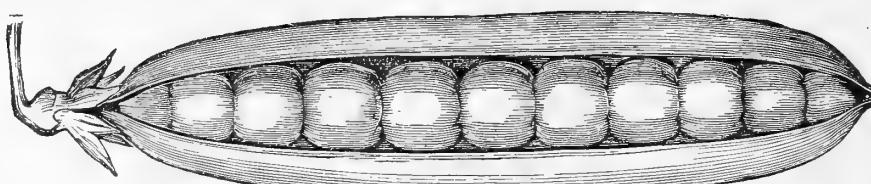
TELEPHONE.—Height, 3 to 4 feet. Large wrinkled seeds; pods large and well filled. Pint, 40c. Quart, 75c. Peck, \$6.00. Bushel, —.

TELEGRAPH, or LONG ISLAND MAMMOTH.—Resembles the Telephone in every respect, except they are a deeper shade of green. Pods are very attractive in appearance. Pint, —. Quart, —. Peck, —. Bushel, —.

IMPROVED SUGAR MARROWFAT PEAS (Genuine Stock).—Height, 3½ feet. Grows a strong vine, bears in abundance large, filled pods. The truckers' favorite. Pint, 25c. Quart, 50c. Peck, \$4.00. Bushel, \$11.00.

ADMIRAL DEWEY.—Here we have a most excellent Pea, with large, handsome pods; Peas of the highest quality. More dwarf than the Stratagem and about a week earlier in maturing, regular and uniform in growth; vines stocky, healthy and of vigorous growth; pods long, frequently containing 10 peas, of tender and delicious flavor. Don't fail to try it. Pint, 40c. Quart, 75c. Peck, —. Bushel, —.

FRENCH CANNER.—Height, 3½ feet. The celebrated Pea used in France by the canners. It is wonderfully prolific, bearing an abundance of long pods, containing 7 to 9 peas of excellent flavor. Pint, 25c. Quart, 50c. Peck, \$4.00. Bushel, \$11.00.



IMPROVED SUGAR MARROWFAT PEAS.

HERBS

A well assorted selection of the various kinds of herbs should have a place in every garden. Their value in seasoning and flavoring is well known and appreciated. Sow in spring in shallow drills, one foot apart, and when well up thin out or transplant to a proper distance. Care should be taken to harvest on a dry day just before they fully blossom.

	Pkts.	Oz.	¼ lb.	Lb.		Pkts.	Oz.	¼ lb.	Lb.
ANISE	5c.	15c.	...	...	DILL	5c.	15c.	...	...
BASIL	5c.	15c.	...	...	FENNEL (Sweet)	5c.	15c.	...	...
BENE, use medicinally...	5c.	15c.	...	...	LAVERENDER	5c.	15c.	...	...
BORAGE, excellent for bees.	5c.	15c.	...	...	MARJORAM	5c.	25c.	...	...
CARAWAY	5c.	15c.	...	...	ROSEMARY, an aromatic herb	5c.	35c.	...	...
CHERVIL	5c.	25c.	...	...	SAGE (American)	5c.	35c.	...	...
CHICKORY	5c.	15c.	...	...	SUMMER SAVORY	5c.	15c.	...	...
CORIANDER	5c.	10c.	...	...	THYME (broad-leaved English)	5c.	35c.	...	...

PEPPER OR CAPSICUM



Is cultivated mainly for pickles; used as a seasoning in many ways; sometimes medicinally. Sow seed early in hotbed, if possible; if not, select a warm place in the garden for seed bed; sow as soon as the soil is warm. Transplant when 3 or 4 inches high, in rows 18 inches apart.

LARGE BELL OR BULL NOSE.—Plant vigorous, compact, very productive, ripening its crop uniformly and early. Fruit large, with thick, mild flesh, of excellent quality for use in salads and pickles; color bright red when ripe. **Pkt., 5c. Oz., 40c. ¼ Lb., \$1.25. Lb., \$5.00.**

RUBY KING.—An improved American variety often four to six inches in length and quite symmetrical in shape. It is very bright colored and the flesh is sweet and mild flavored. **Pkts., 5c. and 10c. Oz., 40c. ¼ Lb., \$1.25. Lb., \$5.00.**

SWEET MOUNTAIN.—Plants very vigorous, of compact, upright growth. The fruit does not ripen until very late. It is very large and long, often eight inches or more in length by two in diameter; very smooth and handsome, being when fully matured of a rich red color. Flesh very thick, sweet and mildly flavored. **Pkts., 5c. and 10c. Oz., 40c. ¼ Lb., \$1.25. Lb., \$5.00.**

CHINESE GIANT.—Double the size of Ruby King; the finest mild Red Pepper grown. It is very productive, having a magnificent appearance, which makes it sell readily. **Pkt., 10c. Oz., 50c. ¼ Lb., \$1.50.**

LONG RED CAYENNE.—A well known variety, having a slender, twisted and pointed pod about four inches long, and when ripe, bright red in color. Extremely strong and pungent flesh. **Pkts., 5c. and 10c. Oz., 40c. ¼ Lb., \$1.25.**

RED CHERRY.—Plant tall, bearing a profusion of round, bright red fruit which are very pungent when ripe. The plant, when in fruit, is very ornamental. **Pkts., 5c. and 10c. Oz., 40c.**

RED CHILLI.—Used in the manufacture of pepper sauce. The bright, rich red pods are about two inches long, one-third to one-half inch in diameter at the base, tapering to a sharp point and exceedingly pungent when ripe. **Pkts., 5c. and 10c. Oz., 40c.**

PUMPKIN



Plant in May, in hills 8 feet apart. Allot 10 seed to each hill, as bugs often destroy the young plants, but only allow 2 or 3 healthy plants to remain in each hill. They are usually planted in fields with corn or potatoes.

G. & T. CO.'S MARYLAND SWEET POTATO

This is the best table Pumpkin in cultivation. In shape and size it somewhat resembles the Cashaw, but much more beautiful in color, being a handsome green and white striped. The flesh is a rich yellow color, solid, fine grained, very thick; flavor delicious. **Pkt., 5c. Oz., 15c. ¼ Lb., 40c. Lb., \$1.25.**

LARGE CHEESE, OR KENTUCKY FIELD.—A very large, flattened pumpkin, averaging about two feet through. When ripened the skin is a rich cream color. Flesh yellow and of fine quality. **Pkt., 5c. Oz., 15c. ¼ Lb., 25c. Lb., 80c.**

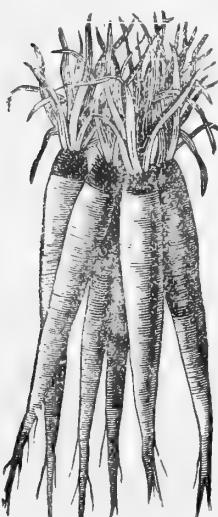
TENNESSEE SWEET POTATO.—A splendid pie and cooking pumpkin. They grow pear-shaped, of medium size, slightly ribbed; skin is creamy white, lightly striped with green; flesh very thick, creamy white, dry and fine-grained, keeping well until late in the spring. When cooked resembles sweet potatoes, but much more delicious in taste. **Pkt., 5c. Oz., 15c. ¼ Lb., 25c. Lb., \$1.00.**

CONNECTICUT FIELD

A fine, large, orange-colored variety used for field culture and stock feeding. The skin is smooth and ribbed and the flesh is brittle and sweet. **Oz., 15c. ¼ Lb., 25c. Lb., 80c.**

YELLOW CASHAW, OR CROOKNECK.—Solid flesh, fine and sweet; keeps well. **Pkt., 5c. Oz., 15c. ¼ Lb., 25c. Lb., 80c.**

SALSIFY OR VEGETABLE OYSTER



Sow in early spring in light, rich soil in drills 14 inches apart and thin the plants to six inches in the row. The roots will be ready for use in October and will sustain no injury by being left in the ground during the winter.

SANDWICH ISLAND MAMMOTH.—This new Salsify grows fully twice the size of the old sort, and is superior in quality. Invaluable to market gardeners. **Pkt., 5c. Oz., 15c. ¼ Lb., 50c. Lb., \$1.75.**

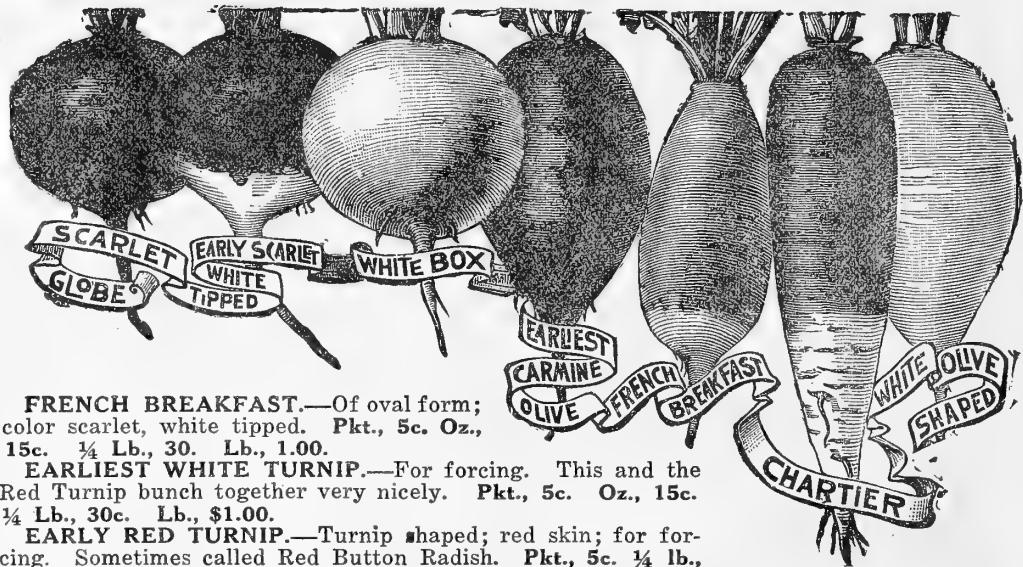
LARGE WHITE.—The old well-known variety. **Pkts., 5c. and 10c. ¼ Lb., 50c. Lb., \$1.75.**

RADISH

ONE OUNCE
WILL SOW
100 FEET
OF DRILL

For an early supply sow in hotbed in February. For a successive supply sow from middle of March to September. Radishes thrive best in light, rich, sandy loam. The radish must make a rapid growth to be fit for use; it will then be crisp and tender and of a mild flavor. If it grows slowly, it will be hard, fibrous and disagreeably pungent.

EARLY SCARLET, OR PRUSSIAN GLOBE RADISH.—This is the very best forcing variety; is sown largely by market gardeners and truckers, and they are delighted with it. It is of a globular shape and brilliant, beautiful crimson color, short top, and will stand a large amount of heat without becoming pithy. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.



FRENCH BREAKFAST.—Of oval form; color scarlet, white tipped. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30. Lb., 1.00.

EARLIEST WHITE TURNIP.—For forcing. This and the Red Turnip bunch together very nicely. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

EARLY RED TURNIP.—Turnip shaped; red skin; for forcing. Sometimes called Red Button Radish. Pkt., 5c. $\frac{1}{4}$ lb., 30c. Lb., \$1.00.

SCARLET OLIVE-SHAPED RADISH.—A showy half-long variety of pretty shape and bunches beautifully. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

WHITE BOX.—Perfectly round, smooth skin, pure white, free from any sharpness or bitterness. A remarkably quick grower, with small top. For forcing, it is in every way superior. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

EARLY WHITE TIPPED SCARLET.—An excellent variety for forcing, with very short leaves; bright scarlet in color, with a white tip. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

SUMMER VARIETIES

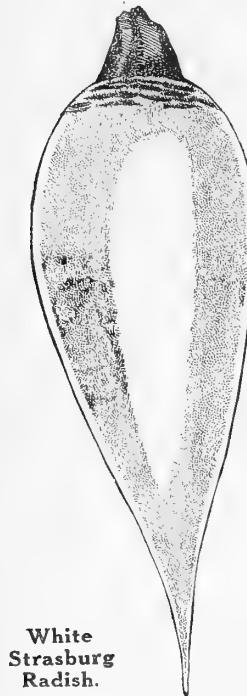
WHITE STRASBURG.—This is becoming one of the most popular summer sorts; it is of handsome tapering shape, skin pure white; very tender. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., 75c.

GIANT STUTTGART.—A splendid new variety, of excellent quality; withstands summer heat. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

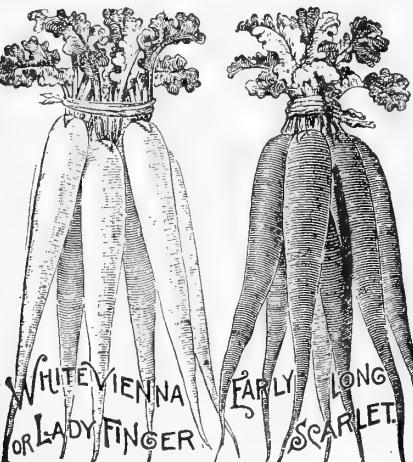
CHARTIER.—A good variety for private or market garden purposes. Stands long before going to seed, and is tender and crisp. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

DELICACY.—Resembles White Strasburg, being more evenly shaped and smaller topped; grows into full size and perfection during the hottest months. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

GOLDEN GLOBE.—An excellent summer Radish; slow to run to seed; shape globular, bright yellow color and mild flavor. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.



White
Strasburg
Radish.



Long Varieties

CINCINNATI MARKET NEW GLASS RADISH. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 25c. Lb., 75c.

WHITE VIENNA, OR LADY FINGER.—This is unquestionably the finest long white Radish. Of most handsome shape, color a beautiful snow white. It is of very rapid growth, and remarkably crisp, brittle and tender; equally desirable for the market or home garden. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.

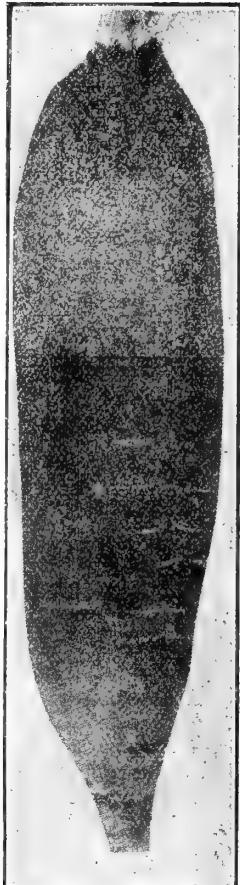
LONG SCARLET (Finest Grown).—Very attractive and sells readily. Owing to its handsome shape, brilliant color and fine qualities, it commands a higher price and more ready sale than the ordinary Long Scarlet as generally sold. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 25c. Lb., 75c.

RADISH--CONTINUED

WINTER VARIETIES



Chinese Winter Radish.



Long Black Spanish Radish.

WHITE CHINESE WINTER, OR CELESTIAL—This excellent variety is sold also as Chinese White Winter. The roots are long, cylindrical, with beautiful white skin and flesh, the whitest and usually the least pungent of the winter varieties. When fully mature the roots are six to nine inches long by about two and one-half to three and one-half inches in diameter. The flesh is compact and crisp. **Pkt., 5c., Oz., 15c.
1/4 Lb., 30c. Lb., \$1.00.**

CHINESE ROSE WINTER—Remarkably fine for winter use. The best of the winter sorts. **Pkt., 5c. Oz., 15c. 1/4 Lb., 30c. Lb., \$1.00.**

LONG BLACK SPANISH—A large winter variety; one of the hardest, with dark green leaves, firm in texture, keeping until spring. **Pkt., 5c. Oz., 15c. 1/4 Lb., 30c. Lb., \$1.00.**

LONG WHITE SPANISH (Winter)—Fine keeping quality. **Pkt., 5c. Oz., 15c. 1/4 Lb., 30c. Lb., \$1.00.**

ROUND WHITE SPANISH—A good fall or winter variety. **Pkt., 5c. Oz., 15c. 1/4 Lb., 30c. Lb., \$1.00.**

ROUND BLACK SPANISH—A fine globe-shaped Radish; very popular with the Germans, known as Rettig; good quality. **Pkt., 5c. Oz., 15c. 1/4 Lb., 30c. Lb., \$1.00.**

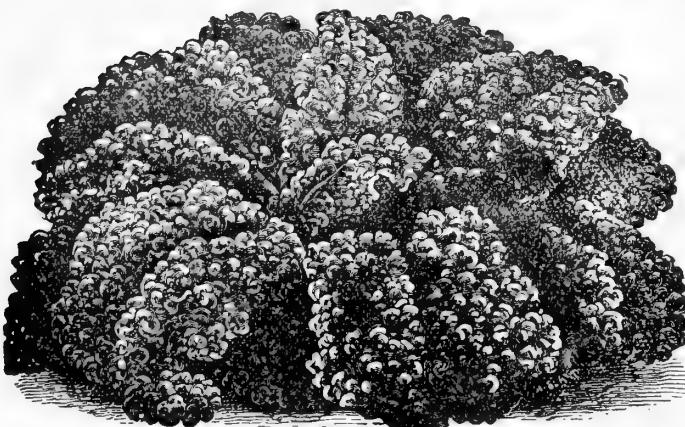
RHUBARB OR PIE PLANT

ONE OUNCE OF SEED TO 125 FEET OF DRILL.

CULTURE—Good plants are easily grown in any good garden soil. Sow seed thinly in shallow drills a foot apart, thin to 4 or 5 inches. Keep soil loose and free from weeds. The plants are liable to vary considerably. Pick out the strongest and best. In fall or spring following, transplant to the permanent bed, 4 feet apart each way, in deep, warm and very rich soil. The more manure the better stalks. For winter forcing take up two-year roots in fall, leave out to freeze, then bed close together on cellar bottom or under greenhouse bench in the dark. **Pkts., 5c. and 10c. Oz., 15c. 1/4 Lb., 30c. Lb., \$1.00.**

RHUBARB ROOTS

15c. each. Dozen, \$1.75.



Bloomsdale—Savoy Spinach.

This is quite an important crop with market gardeners, and one easily managed. For summer use, sow early in spring, in drills eight inches to one foot apart, covering the seed one inch deep. Select rich soil and manure liberally. A succession may be obtained by sowing at intervals of two weeks through the season. For very early spring use sow in August, and protect the plants through the winter by a thick covering of clean straw or some other similar light covering. Spinach is used principally as greens for boiling, and is very highly esteemed for this purpose.

BLOOMSDALE SAVOY—The variety most generally used in the East and especially throughout the South for shipping. Leaves large, round and thick, very much savoyed and rich deep green. One of the earliest varieties. Seed round. **Pkt., 5c. 1/4 Lb., 15c. Lb., 40c.**

G. & T. CO.'S EXTRA CURLED AMERICAN-GROWN

BLOOMSDALE SAVOY SPINACH—This is grown especially for us, and is without exception the best type of Savoy Spinach in existence. It is beautifully curled and wrinkled, the leaves large, thick and heavy, produced in great numbers, and stands handling and transportation better than any other sort; in fact, we hardly think we could say too much about this valuable acquisition to the spinach family. Sold only in sealed bags. **Pkt., 5c.; 1/4 Lb., 15c.; Lb., 50c.**

SPINACH--CONTINUED

LONG STANDING—Best for spring sowing, as it is very slow to seed. The leaves are large, round, unusually thick, curled and of dark green color. Pkt., 5c.; $\frac{1}{4}$ Lb., 15c.; Lb., 50c.

LARGE ROUND-LEAVED VIROFLAY—A new sort, with very large, thick leaves. Pkt., 5c.; $\frac{1}{4}$ Lb., 15c.; Lb., 50c.

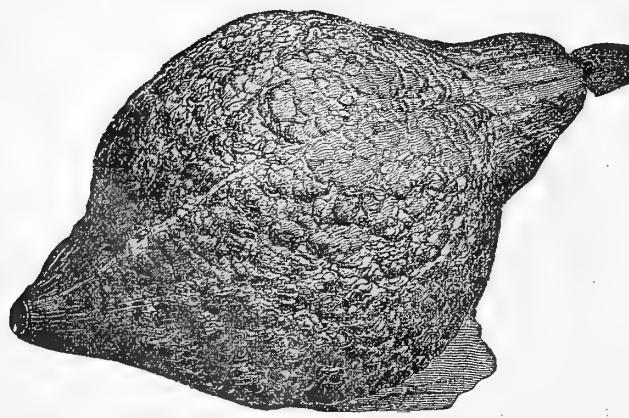
VICTORIA SPINACH—This new spinach comes to us with the highest recommendations from the growers. The foliage is heavy, the broad, dark green leaves being of the true Savoy appearance and of the finest quality; but the most remarkable feature that will make it of special value, both for market and family gardens, is the fact that it is in prime condition from two weeks to three weeks after all other varieties of spinach have run to seed. Pkt., 5c.; $\frac{1}{4}$ Lb., 20c.; Lb., 60c.

WRITE FOR SPECIAL PRICES IN QUANTITIES.

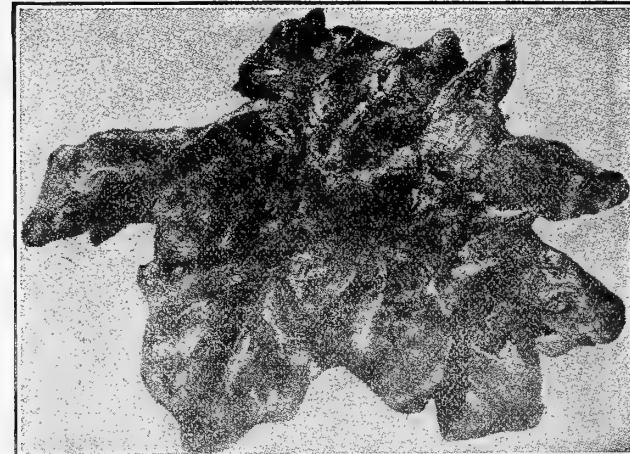
Long Standing Spinach.



Early White Bush Scallop.



Hubbard.



Squash

The Squashes are all quite tender, and therefore no progress can be made in starting them until the weather becomes somewhat warm and settled. Plant in hills five feet apart each way for the bush varieties, and eight feet for the running varieties; put eight seeds to the hill, but don't allow over three to stand.

EARLY WHITE BUSH SCALLOP—A desirable and marketable sort. Best known and most productive of all the summer sorts.

Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

SUMMER CROOK NECK (Early)—Fine flavor; a desirable table sort. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

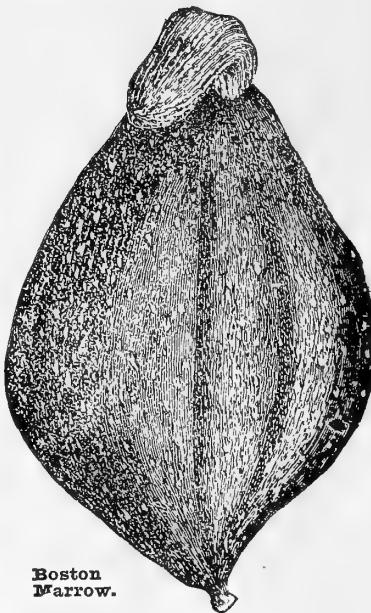
WINTER CROOK NECK—Flesh red, fine flavor; largely grown for winter use. Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 40c. Lb., \$1.25.

HUBBARD—The most popular winter squash. Fruit is oblong and pointed, heavily warted, dark green in color, with orange-colored flesh. Is remarkable for its keeping qualities.

Pkt., 5c.; Oz., 15c.; $\frac{1}{4}$ Lb., 40c.; Lb., \$1.50.

BOSTON MARROW—A popular variety, with large, oval fruit. Skin bright reddish orange with light cream netting. Flesh orange. Fine grained and of excellent quality. This is the most popular variety for canning. The fruit makes a rich orange-red, and delicious flavored dish.

Pkt., 5c. Oz., 15c. $\frac{1}{4}$ Lb., 30c. Lb., \$1.00.



Boston Marrow.



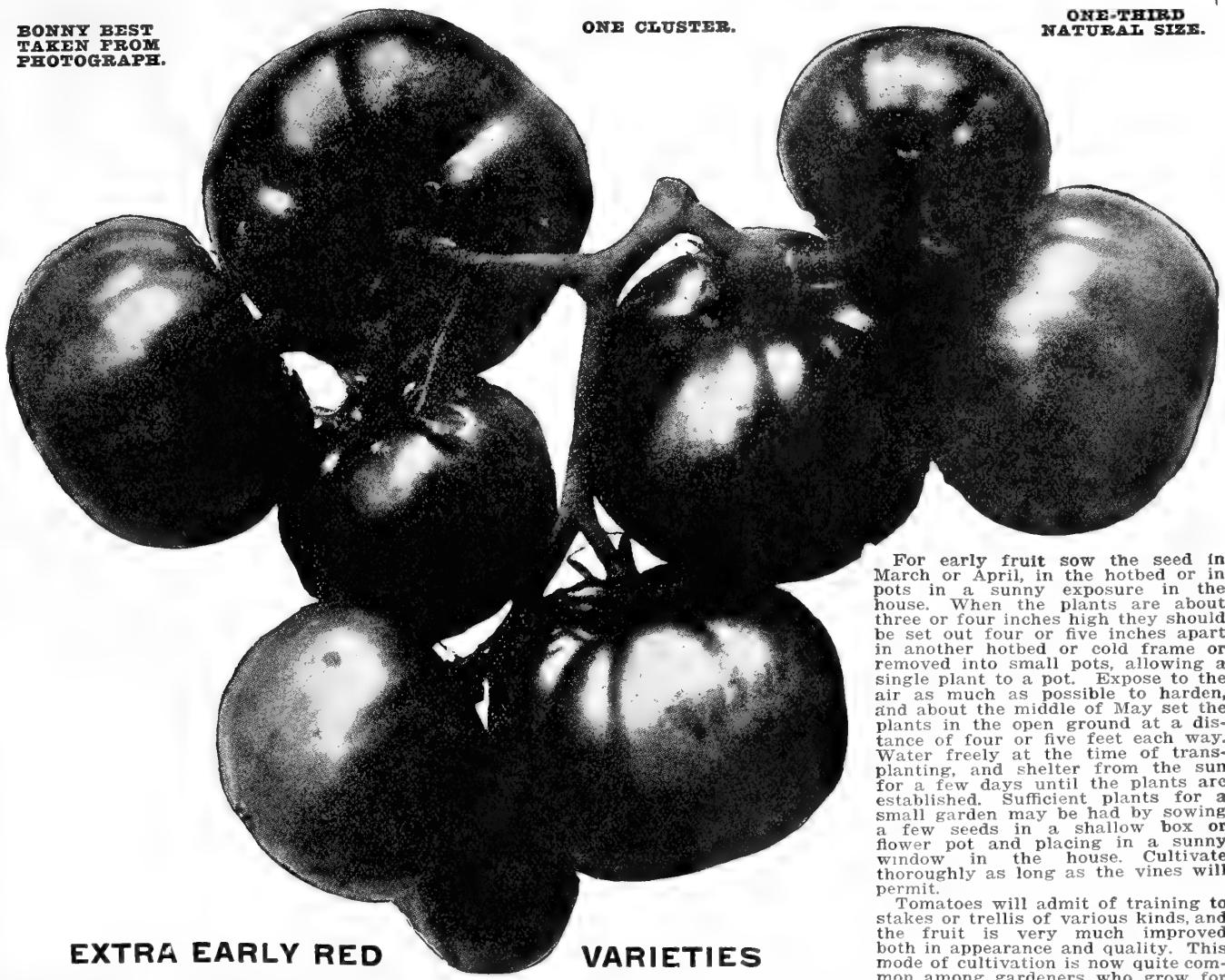
Summer Crook Neck.

TOMATO

BONNY BEST
TAKEN FROM
PHOTOGRAPH.

ONE CLUSTER.

ONE-THIRD
NATURAL SIZE.



EXTRA EARLY RED

early market. The usual method is to set one strong plant to a stake, using stakes five to seven feet in height, tying the plant up with wool or other strong, soft twine, pruning out quite freely as the vines advance in growth. By adopting this method the plants may be set much closer than in the ordinary way.

VARIETIES

BONNY BEST TOMATO

As its name signifies, it is the best extra early tomato yet introduced. Is fully ten days earlier than Chalk's Early Jewel, and within a day or two, if not quite as early as Spark's Earlianana. Truckers who tested it claim it is as early as Earlianana.

It is a vigorous grower, very prolific, with dense foliage, which protects the fruits from hot sun when other varieties like the Earlianana have scalded fruits. The fruit is even size, smooth, round, red, of delicious flavor, ripening to stem.

It does not have the green surface like the Earlianana and other extra early varieties. Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25. Lb., \$5.00.

EARLY I. X. L. TOMATO.—Earliest, largest, most prolific. Pkt., 10c. $\frac{1}{2}$ oz., 20c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25. $\frac{1}{2}$ lb., \$2.50. Lb., \$5.00.

For early fruit sow the seed in March or April, in the hotbed or in pots in a sunny exposure in the house. When the plants are about three or four inches high they should be set out four or five inches apart in another hotbed or cold frame or removed into small pots, allowing a single plant to a pot. Expose to the air as much as possible to harden, and about the middle of May set the plants in the open ground at a distance of four or five feet each way. Water freely at the time of transplanting, and shelter from the sun for a few days until the plants are established. Sufficient plants for a small garden may be had by sowing a few seeds in a shallow box or flower pot and placing in a sunny window in the house. Cultivate thoroughly as long as the vines will permit.

Tomatoes will admit of training to stakes or trellis of various kinds, and the fruit is very much improved both in appearance and quality. This mode of cultivation is now quite common among gardeners who grow for

ATLANTIC PRIZE (Select Stock).—An excellent extra early red Tomato, and while it does not run as regularly smooth as the Paragon, it ripens very evenly.

Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25. Lb., \$4.00.

CHALK'S EARLY JEWEL.—Deep-fruited and solid. The growth is very compact. Fruit of uniformly good size; very solid; brightest scarlet, ripening up to the stem without cracks or green core; sweet flavor.

Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25. Lb., \$5.00.

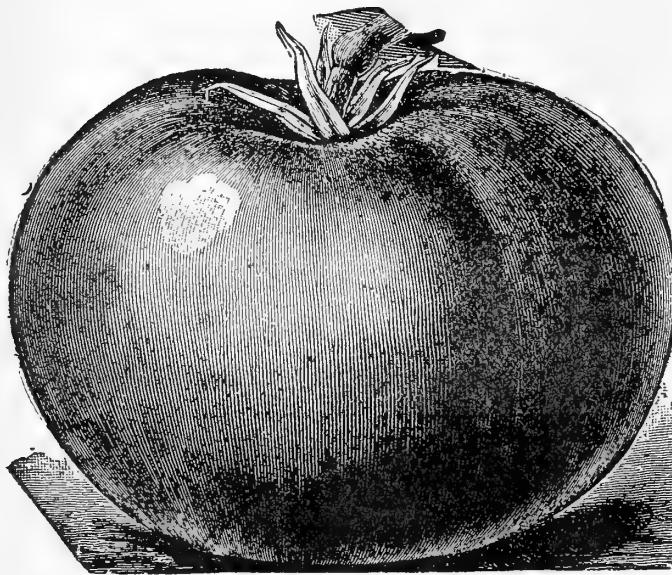
MAULE'S EARLIEST.—New; very fine; extra early; very prolific; fruits large size; excellent for shipping.

Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25.

NEW SUCCESS.—A magnificent new scarlet fruited Tomato of finest quality, handsome appearance, large size and great productiveness.

Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25. Lb., \$4.00.

EARLY RED VARIETIES

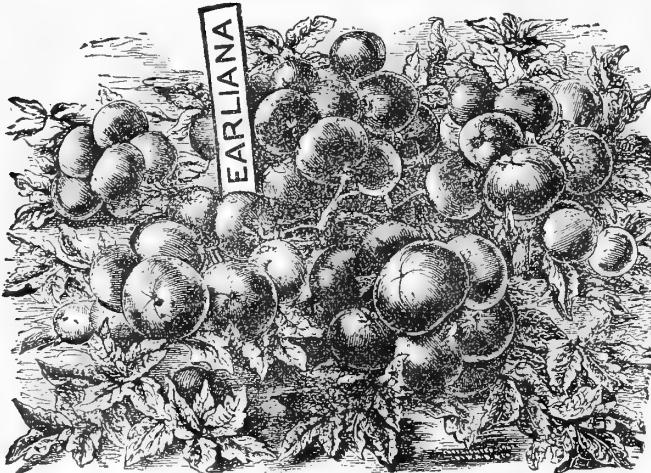


EXTRA EARLY RUBY

While not as early as the Sparks' Earliana by a week or ten days, it is far superior in quality, size, shape, flavor and productiveness. In color, ruby red, nearly globe-shaped; solid flesh throughout, and with very few seeds and free from acidity; it makes a splendid main crop variety; a great keeper and shipper. Pkt., 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25. Lb., \$5.00.

JOHN BAER.—New, early and prolific. Fine flavor and shape; quite as early as **Bonny Best**.

Pkts., 5c. and 10c. $\frac{1}{4}$ lb., \$1.25. Lb., \$5.00.



SPARKS' EARLIANA.—The earliest bright red Tomato; very large, smooth color, bright red; solid and excellent for slicing. The plants are of moderate growth, well set with fruits, nearly all of which ripen extremely early in the season. Grows in clusters; of medium size; smooth, solid, solid center, small seed cells, slightly acid.

Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25. Lb., \$5.00.

EXTRA EARLY PURPLE VARIETIES

BEAUTY.—For early market and shipping this cannot be excelled, because of its solidity and toughness of skin. Color is a rich, glossy crimson, with a slight tinge of purple. It is well known and very largely used by our gardeners.

Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.00. Lb., \$4.00.

DWARF CHAMPION.—Dwarf, upright growth; smooth purple fruit.

Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25. Lb., \$5.00.

PRIZETAKER.—Early; large; handsome; deep crimson; slight tinge of purple.

Pkts., 5c. and 10c. Oz., 30c. $\frac{1}{4}$ lb., 90c. Lb., \$3.00.

MEDIUM EARLY PURPLE VARIETIES

PRIZEWINNER.—Purple; early; prince of market Tomatoes; color resembles Beauty, but larger; solid; one of the best keepers and shippers; smooth; well adapted for late crop.

Pkt., 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.00. Lb., \$4.00.

MONTEREY.—Remarkable for size; fruits heavy; deep red; flesh thick, solid and fine quality.

Pkt., 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25.

ACME.—Purple; early; medium; pink-purplish; slightly oval.

Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25.

CRIMSON CUSHION.—Resembles Ponderosa in shape and size; color deep red. Pkt., 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25.

BUCKEYE STATE.—Purple; productive, but not very solid; large, smooth.

Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25.

LORILLARD.—Best for greenhouse forcing; bright, glossy red; very smooth. Pkt., 10c.

SMALL FRUITED VARIETIES

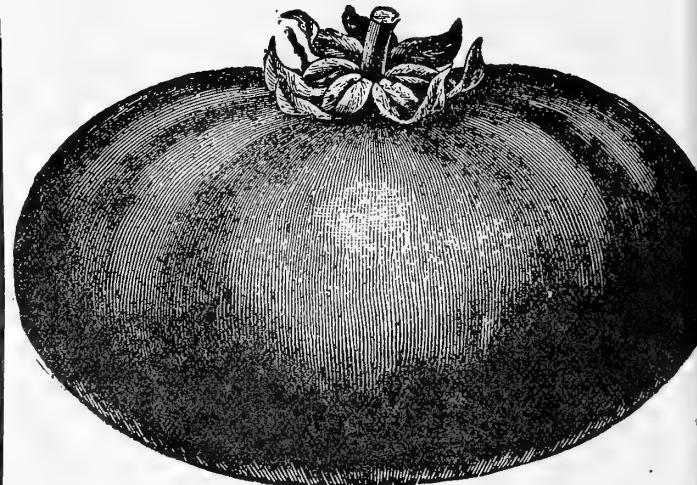
PEAR-SHAPED RED.—Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25.

PEAR-SHAPED YELLOW.—Used for preserves and pickles.

Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25.

YELLOW PLUM.—Color bright yellow; excellent for preserving. Pkt., 5c. Oz., 35c. $\frac{1}{4}$ lb., \$1.25.

MAIN CROP



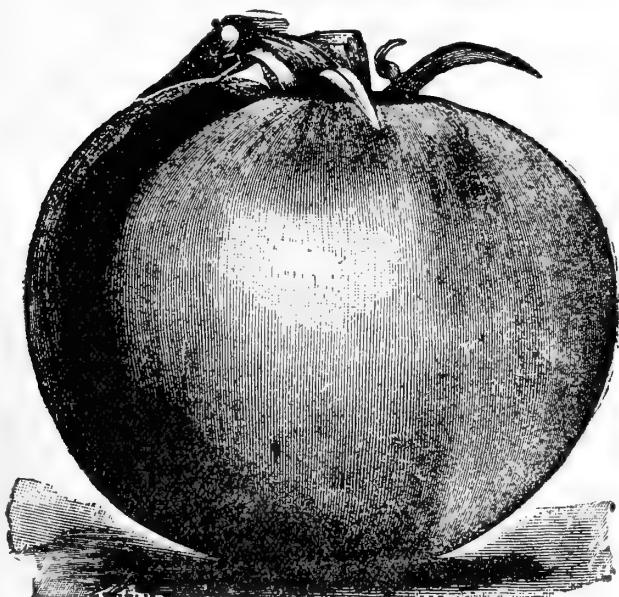
Griffith & Turner Co.'s World's Fair

The great canner. The six great points of this great canner—solidity, symmetry, handsome, bright red, ripens uniformly, free from rot. Its shipping and keeping qualities are unexcelled.

The planters now demand this great Tomato, notwithstanding the fact that there are many much-newer varieties. Yet it has been so successful that it is preferred above all others. The fruit is particularly solid and of fine flavor, good size, smooth, and certainly very attractive.

Pkts., 5c. and 10c. Oz., 30c. $\frac{1}{4}$ lb., 90c. Lb., \$3.50.

Main Crop Varieties

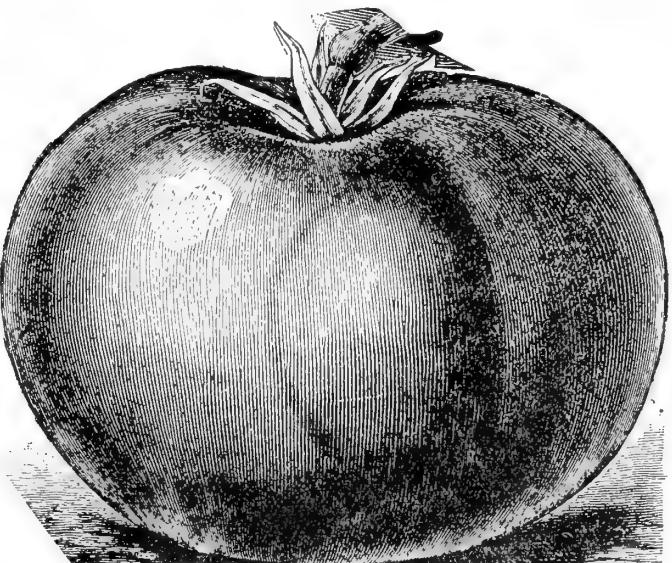


RED ROCK

One of the finest for canning, being extraordinarily solid, smooth and red. No other variety has any better qualities than the Red Rock. Of fine flavor, very meaty and wonderfully free from acid. A heavy producer and good shipper. We think it is the coming Tomato for main crop and cannery use. Pkts., 5c. and 10c. Oz., 35c. $\frac{1}{4}$ Lb., 90c. Lb., \$3.50.

WISDOM.—Recently introduced. Medium, early; good crop per, fine size and flavor. Good for early or late planting.

Pkts., 5c. and 10c. Oz., 50c. $\frac{1}{4}$ Lb., \$1.25. Lb., \$5.00.



MATCHLESS.—The color is rich red. The skin is so tough that it makes a splendid keeper and shipper, and is less liable to crack in wet weather than any other large Tomato. Unsurpassed for market or table; strong grower and very productive, bearing with undiminished vigor until frost. The fruit is free from core and the seed spaces comparative small.

Pkts., 5c. and 10c. Oz., 30c. $\frac{1}{4}$ Lb., 90c. Lb., \$3.50.

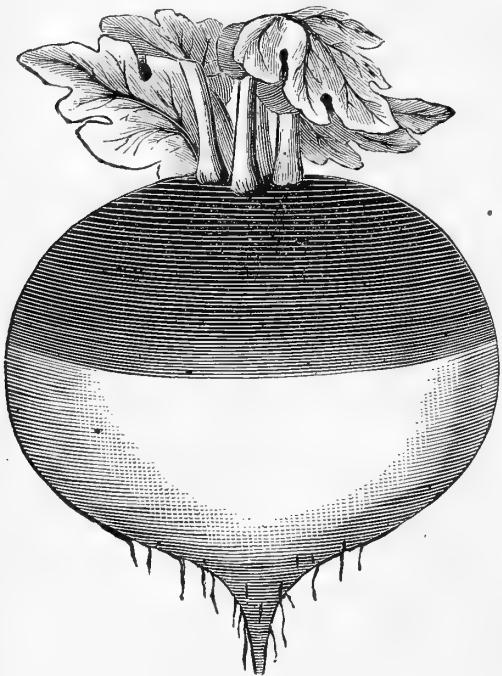
BRINTON'S BEST.—One of the leading sorts for second early and late use; the fruit is large, handsome and a splendid keeper. A great favorite with cannery and truckers.

Pkts., 5c. and 10c. Oz., 30c. $\frac{1}{4}$ Lb., 90c. Lb., \$3.50.

KELLY RED TOMATO.—This splendid Red Tomato originated in Anne Arundel County, Md., and through its superior qualities it has become the Tomato most largely used in that section. It is large, meaty, an abundant yielder, and withstands unfavorable conditions remarkably well.

Pkts., 5c. and 10c. $\frac{1}{2}$ Oz., 15c. Oz., 30c. $\frac{1}{4}$ Lb., 90c. Lb., \$3.50.

TURNIP

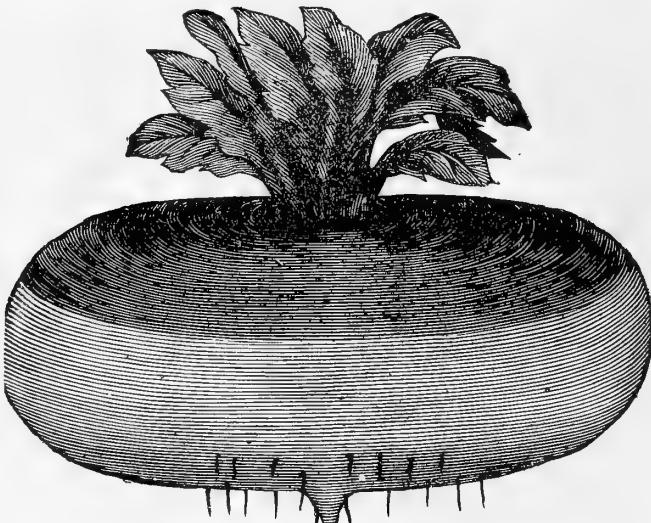


Improved Purple or Red Top Globe Turnip.

This excellent table variety is globular in shape, of good size and very attractive appearance. The roots are large, purple or dark red above ground, white below. The flesh is white, fine grained and tender. The roots when in best condition for the table are about three inches in diameter, but can be grown much larger for stock feeding. This sort keeps well for so early a variety, and is one of the best for market use. It is also known as Red Top White Globe.

Pkt., 5c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 40c. Lb., 75c.

For early use, sow the small sorts as soon as the ground can be worked in the spring, in drills 14 inches apart, the Rutabagas 30 inches. As the seed is very fine, it should be covered but slightly, excepting in very dry weather. Select light, and if possible, new soil and manure with plaster and ashes or phosphates. Should the young plants be troubled with insects, a sprinkling of slug shot will be beneficial. For fall and winter use the early kinds should be sown, from the middle of July to the middle of August, and the Rutabagas from the middle of June to the first of July, using from one to one and a half pounds of seed to the acre.



Red or Purple Top Flat Strap-Leaved Turnip.

A very early strap-leaved variety, very extensively used for the table. The leaves are few, entire, upright in growth. The roots are flat, of medium size, purple or dark red above ground, white below. The flesh is white, fine grained and tender. Roots when in best condition for table use are about two and one-half inches in diameter, but can be grown much larger for stock feeding. This sort is also known as Early Red Top, Strap-Leaved. Pkt., 5c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 40c. 1 Lb., 75c.

YELLOW ABERDEEN, or SCOTCH YELLOW—This is a highly approved Cattle Turnip, attaining a large size. It is solid, nutritious, a good keeper, and in every respect reliable.

Pkt., 5c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 35c. Lb., 70c.

LARGE AMBER, or YELLOW GLOBE—Grows to a large size; flesh yellow, firm and fine-grained. Excellent for either table use or feeding stock. Pkt., 5c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 35c. Lb., 70c.

SEVEN TOP—For greens and salads. Used largely in the Southern States. Pkt., 5c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 35c. Lb., 70c.

EXTRA EARLY PURPLE TOP MILAN—The earliest and handsomest Flat Turnip in cultivation; none equal to it for spring sowing. Pkt., 5c. $\frac{1}{4}$ Lb., 50c. $\frac{1}{2}$ Lb., 90c. Lb., \$1.75.

WHITE FLAT (Strap Leaf)—Differs from Red Top only in color. Pkt., 5c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 35c. Lb., 70c.

EARLY WHITE EGG—A new variety of rapid growth; egg-shaped and white, as its name indicates. Pkt., 5c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 35c. Lb., 70c.

COW HORN (Large Croppers)—This variety is pure white, excepting a dash of green at the crown, and in shape is long, like the carrot. Oz., 15c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 35c. Lb., 70c.

SOUTHERN PRIZE—True strain of the favorite Turnip for greens in Virginia and the Carolinas. Valued also for its bulk. Oz., 15c. $\frac{1}{4}$ Lb., 20c. Lb., 70c.

RUTABAGAS OR SWEDES

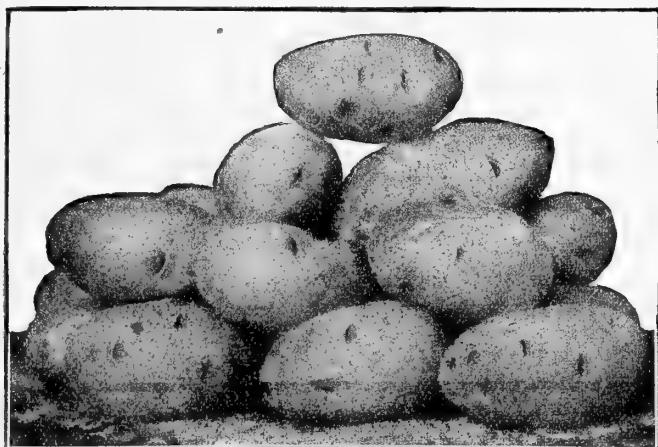
The Swede Turnips, or Rutabagas, grow much larger in size, and are of greater value for stock feeding than ordinary turnips. Every farmer and stock-raiser should grow Rutabagas and Stock Beets for winter feeding.

GRIFFITH & TURNER CO.'S IMPROVED PURPLE TOP—Yellow-fleshed. A standard field variety for stock and fine for family use. This splendid Swede is the hardiest, most productive and most nutritious variety in cultivation. Pkt., 5c. $\frac{1}{4}$ Lb., 20c. Lb., 75c.

PURPLE TOP RUTABAGAS—An old standard sort of good quality. Pkt., 5c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 40c. Lb., 75c.

G. & T. CO.'S WHITE ROCK—Though sometimes called a turnip, this is more like a rutabaga. The root is large, both skin and flesh very white, and is one of the best varieties we have for table use. An excellent keeper and a desirable sort for market gardeners. Pkt., 5c. $\frac{1}{4}$ Lb., 20c. $\frac{1}{2}$ Lb., 40c. Lb., 75c.

G. & T. Co.'s Improved Purple Top Rutabaga.



Extra Early Prize Potatoes.

G. & T. CO.'S EXTRA EARLY PRIZE.—This potato is in all respects a very superior early sort. It proved to be early and productive; also found its eating qualities first class. We consider it the best early Potato on the market today.

15 lbs. @ 6c. lb. 60 lbs. @ 5½c. lb.

WHITE BLISS TRIUMPH, or PRIDE OF THE SOUTH.—Extra early round white; identical with the Red Bliss, only different in color. A very fine variety for early market or family garden.

15 lbs. @ 6c. lb. 60 lbs. @ 5½c. lb.

RED BLISS TRIUMPH.—This beautiful variety combines the wonderful productiveness of the Peerless with all the good qualities of the Early Rose; is much more productive and matures its crop at least a week in advance of the Early Rose.

15 lbs. @ 7c. lb. 60 lbs. @ 6c. lb.

EARLY OHIO.—This is very early and productive, of fine quality and an excellent keeper.

15 lbs. @ 6c. lb. 60 lbs. @ 5½c. lb.

MAINE, or HOULTON EARLY ROSE.—The Early Rose led the list for over 30 years, and is today one of the best early market Potatoes. Our stock of this is grown on new land, near Houlton, Maine; is rugged and pure, and produces as good crops as those which made the Early Rose famous in its early years. Remember, that this stock is not to be confounded with the old run-out Rose grown in other sections.

15 lbs. @ 6c. lb. 60 lbs. @ 5½c. lb.

EARLY NORTHER.—This superb Potato originated at Caribou, Maine. It resembles the Early Rose in shape and color, matures earlier than the Rose, and is much more productive. Under our own observation the past season it yielded more than the Rose, matured earlier, and was in all respects superior.

15 lbs. @ 6c. lb. 60 lbs. @ 5½c. lb.

EARLY BOVEE.—One of the earliest varieties; good size, very smooth; uniform, perfect shape; eyes shallow; light skin and white flesh. Cooks dry and floury; of superb quality; a great yielder and healthy grower.

15 lbs. @ 6c. lb. 60 lbs. @ 5½c. lb.

CROWN JEWEL.—Very early and prolific; skin pinkish white. One of the best for early market. It is planted very largely in this vicinity and the South.

15 lbs. @ 6c. lb. 60 lbs. @ 5½c. lb.

BEAUTY OF HEBRON.—Very rapid and vigorous grower, ripening as early as Early Rose, which it resembles, but frequently exceeds in productiveness and excellence for table use, either baked or boiled.

15 lbs. @ 6c. lb. 60 lbs. @ 5½c. lb.

MARYLAND WHITE POTATOES

FOR LATE PLANTING

ORDER EARLY TO SECURE A SUPPLY.

Fine white skin, shallow eyes, beautiful oblong shape, thick through, fine flavor, excellent cooker, heavy yielder. Will yield better than other late varieties. Ready in June to plant.

Price—15 lbs. @ 7c. lb. 60 lbs. @ 6c. lb. From Cold Storage.

SWEET POTATOES

CHOICE JERSEY SWEETS AT MARKET PRICES DURING SEASON. WRITE FOR QUOTATIONS.

POTATOES

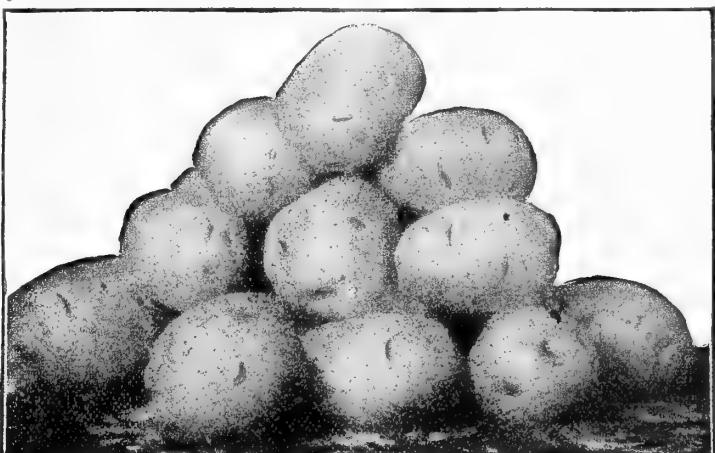
MAINE OR NORTHERN GROWN

All Potatoes Sold by Weight Only

A Bushel Consists of 60 Pounds.

The soil best suited to the Potato is a rich, sandy loam; but it seems to thrive in almost any soil or climate. The Potato being a gross feeder requires a liberal application of manure. If stable manure is to be used it should be well-rotted, and not allowed to come in contact with the tubers. On no other crop are the results from the use of phosphates so manifest as on the Potato. Almost invariably the tubers are smoother, brighter and freer from rust and the destructive influence of wire worms. **GRIFFITH & TURNER CO.'S PLANT FOOD** is especially adapted for Potatoes, as it promotes growth and at the same time prevents disease. Plant as early in the spring as the ground can be thoroughly worked in rows three feet apart and one foot in the rows, covering in light, warm soil about four inches, and in cold, wet ground three inches deep; draw the earth to the plants as they advance in growth. The soil should be constantly stirred through the season to prevent the surface from baking.

IRISH COBBLER (A New Sort).—Very productive, matures early; shape chunky, eyes strong and deeply set, skin netted, flesh white, quality very superior. After years' ex-



Irish Cobbler Potatoes.

perience we find that it is a very superior variety. Don't fail to get it.

15 lbs. @ 6c. lb. 60 lbs. @ 5c. lb.

G. & T. CO.'S BOUNTIFUL.—The finest middle crop variety yet introduced. Before putting it on the market we have given it a thorough test, and are convinced of its superior qualities. A heavy cropper, yielding large, smooth, handsome tubers.

15 lbs. @ 6c. lb. 60 lbs. @ 5c. lb.

PROSPERITY.—A middle-crop variety, one of the handsomest large Potatoes ever produced. The yield is immense, and even under unfavorable circumstances can be relied on; flesh very white; cooks dry and mealy.

15 lbs. @ 6c. lb. 60 lbs. @ 5c. lb.

RURAL NEW YORKER, NO. 2.—A valuable variety of large size, very smooth and a great cropper; in quality unexcelled. This variety is yearly becoming more popular as the best late long keeper, and we recommend it highly.

15 lbs. @ 6c. lb. 60 lbs. @ 5c. lb.

BURBANK.—This is an old and reliable variety, and is A No. 1 for a late, large-yielding, good-keeping Potato, and for table use, after January 1, is one of the best.

15 lbs. @ — lb. 60 lbs. @ — lb.

NEW QUEEN.—A grand Potato of recent introduction, closely resembling Beauty of Hebron in appearance, color, size and shape, but is 7 to 10 days earlier and a heavy yielder. Our seed of this variety comes from Maine, where it originated, and is pure and true to name.

15 lbs. @ 6c. lb. 60 lbs. @ 5½c. lb.

GREEN MOUNTAIN.—A fine late sort.

15 lbs. @ 6c. lb. 60 lbs. @ 5c. lb.

UNITED STATES FOOD ADMINISTRATION LICENSE NO. G 22972.

Yellow Field Corn

CHESTNUT GROVE YELLOW CORN—This corn was grown on Chestnut Grove Farm, Baltimore county, and the average yield from the whole crop was 20 1-16 barrels to the acre. The ears are large, deep, medium-sized grain, and of beautiful color. Qt., 20c. Peck, \$1.25. Bus., \$4.00. 10-bus. lots, \$3.50 bus.

NEW MARYLAND YELLOW DENT—The grains are unusually deep, ears large, stalks grow from 7 to 10 feet high, does not exhaust soil so much, and will stand drought better than a large stalk, and will yield 5 to 10 bushels per acre more than any other corn generally planted. Qt., 20c. Peck, \$1.25. Bus., \$4.00. 10-bus. lots, \$3.50.

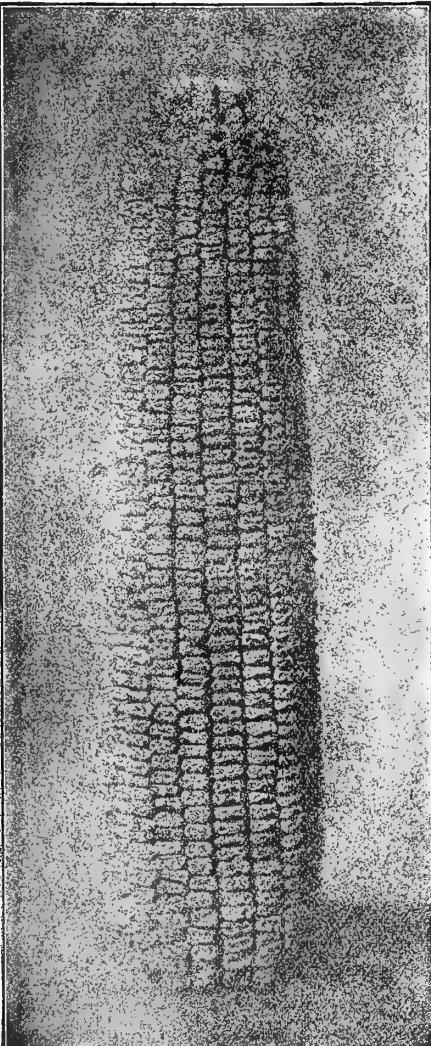
IMPROVED EARLY LEAMING—Bred and tested for 10 years. Pedigree stock. An early selected variety of yellow corn; small grain, weighty and productive. Highly esteemed in Maryland and Pennsylvania. One of the earliest varieties of yellow corn in cultivation. Qt., 20c. Peck, \$1.25. Bus., \$4.00. 10-bus. lots, \$3.50 bus.

G. & T. CO.'S IMPROVED GOLDEN BEAUTY—A large, broad-grained yellow corn, with ears of perfect shape and small cob. The richness of color and the quality of grain make it a very superior variety. Qt., 20c. Peck, \$1.25. Bus., \$4.00. 10-bus. lots, \$3.50 bus.

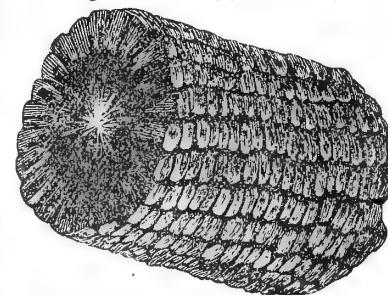
90-DAY YELLOW—This is an excellent quick-growing variety. May be planted after peas are taken off, and make a good crop. Largely used by truckers around Baltimore. Qt., 20c. Peck, \$1.25. Bus., \$4.00. 10-bus. lots, \$3.50 bus.

REID'S YELLOW DENT CORN—Matures in 100 to 105 days. Has a rich yellow color, very solid heavy ears from 8 to 12 inches long, with 16 to 18 rows of grain. The grains are deep on a small red cob. Fodder from 7 to 8½ feet high, and produces a great many stalks with two ears. A fine early corn. Qts., 20c. Peck, \$1.25. Bus., \$4.00.

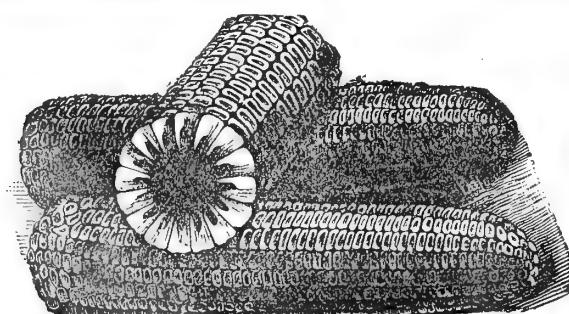
MAMMOTH YELLOW ENSILAGE CORN—Especially adapted for ensilage, as it grows large fodder and blades; preferred by many to the white. Qt., 20c. Peck, \$1.25. Bus., \$4.00.



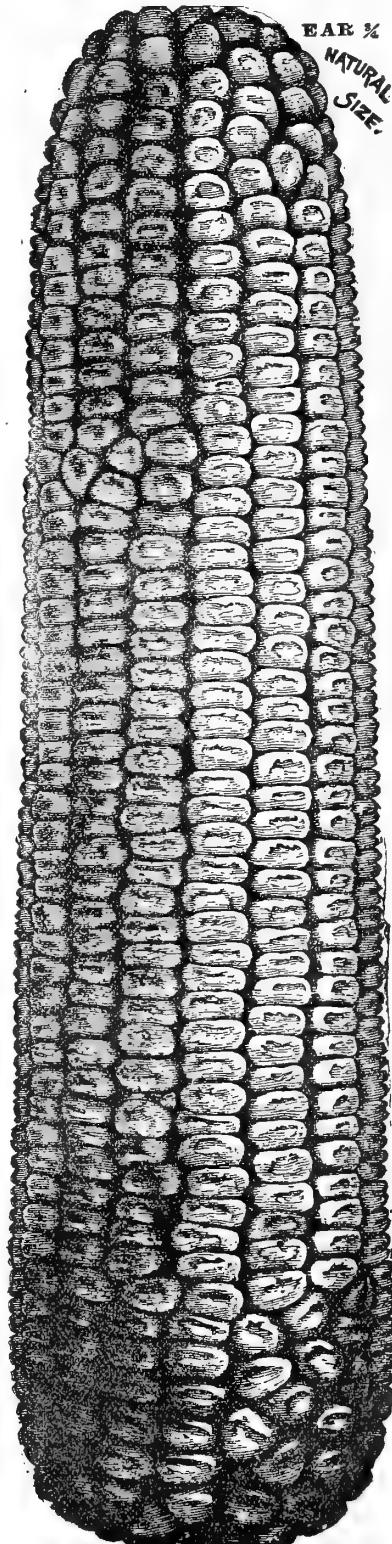
Maryland Yellow Dent Corn.



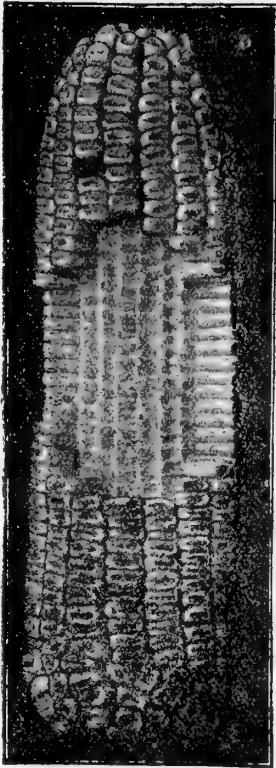
Improved Yellow Leaming.



Golden Beauty (Yellow).



GRIFFITH & TURNER CO.'S CHESTNUT YELLOW CORN



Boone County White Corn.

SEED OATS

IMPROVED WHITE TARTAR.

The most remarkable Oats now under cultivation. Our customers say they will sow no others. These grand Oats outyield all others. The very best for all-round purposes. Greatest yielding variety in existence and rust-proof. Succeeds well on all soils. Straw is of golden yellow color, while the grains are white, with a slight golden cast. Withstands stormy weather. A measured bushel weighs from 36 to 42 lbs. Would highly recommend these Oats to all our customers. Change your seed this season. Bushel of 32 lbs., \$2.00.

WHITE SEED OATS

For spring sowing. 32 pounds to the bushel. Extra heavy fancy White Oats. Ask for prices.

WINTER TURF OATS

Perfectly hardy in the Southern and Middle States, standing the winter nearly as well as wheat. Yields, on good land, from 50 to 70 bushels to the acre, of fine, heavy grain weighing from 30 to 40 pounds to the measured bushel. Furnishes excellent fall, winter and early spring grazing, without injury to the grain crop. Write for prices first of August.

UNITED STATES FOOD ADMINISTRATION LICENSE NO. G 22972.

WHITE FIELD CORN

G. & T. CO.'S IMPROVED MARYLAND WHITE DENT CORN.—After years of careful selection we have secured this improved White Field Corn; grows good-sized ears and makes splendid meal. Produces better crops on average land than most any other variety. Qt., 20c. Peck, \$1.25. Bus., \$4.00.

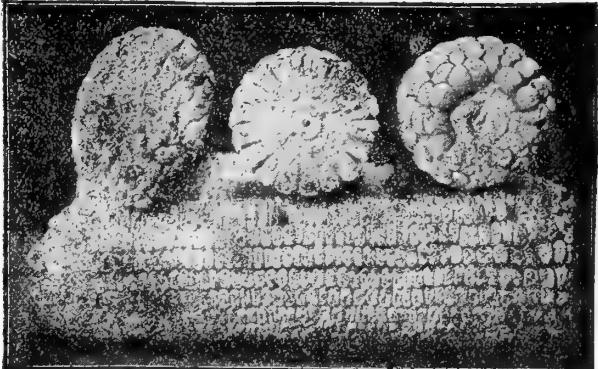
BOONE COUNTY WHITE.—We believe this to be the best all around White Corn in existence. It is a heavy yielder; has large ears, deep grain, small cob and produces good-sized fodder, free from barren stalks. Matures in 110 to 115 days. Price: Qt., 20c. Peck, \$1.25. Bus., \$4.00. 10-Bushel Lots, \$3.50 Bushel.

SOUTHERN SNOWFLAKE.—A well-known and very popular corn through the South. Suitable for meal or feeding purposes; the best white corn for poor land. Qt., 20c. Peck, \$1.25. Bus., \$4.00.

90-DAY CORN (White with Red Cob).—This is an elegant corn for truckers and market gardeners, as it is as good a seller as green corn. Is suitable for either early or late crop. Qt., 20c. Peck, \$1.25. Bus., \$4.00.

WHITE ENsilAGE CORN.—Specially adapted for ensilage. Bushel, \$4.00.

POPCORN POPPERS.—15c. each.



Maryland White Dent Corn.

JOHNSON COUNTY WHITE CORN.

A favorite white corn in the Western Corn Belt. Ears are a little longer than the Boone Co. White, but about same diameter. Good, deep grain on small, white cobs, and not quite so indented as the Boone Co. It will shell from six to seven bushels per barrel.

We recommend it as a fine general main crop sort. Will mature in about 120 days. Has abundant foliage, which makes it also valuable for ensilage purposes.

Quart, 20c. Peck, \$1.25. Bushel, \$4.00. 10-bushel lots and over, \$3.50.

SEED WHEAT AND RYE

We can offer choice stocks of Seed Wheat and Rye, recleaned, and at reasonable prices. Write us August 1 for special prices for fall sowing.

SEED BUCKWHEAT

JAPANESE.—The best sort. The plants are large and vigorous, maturing their seed early and resisting drought and blight remarkably well, while the grain is much larger and at the same time has a thinner hull than the common or the Silver Hull. Owing to its branching character, only one-half the seed is required per acre, while the straw is much stiffer and stands up better. We recommend this especially for well-drained or sandy land and the dry climate of the Western plains. Peck, \$2.50. Bushel, \$2.50.

SILVER HULL.—Same price as above.



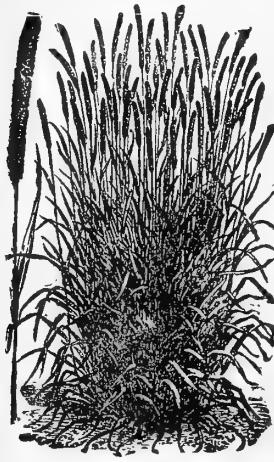
BARLEY

BEARDLESS FALL BARLEY.—A fall variety without beards. Ask for prices.

BEARDED FALL BARLEY.—A heavy yielder, much better than spring barley. Sow in September for best results. Ask for prices.

WRITE FOR PRICES ON FIELD SEEDS IN QUANTITY.

High-Grade Grass Seeds



TIMOTHY.



RED TOP GRASS.

SHEEP FESCUE (*Festuca ovina*).—It is a densely tufted perennial grass for dry, sandy and rocky soil where scarcely any other species will grow. It roots deeply, and forms a dense, short tuft, suitable for lawns and pleasure grounds where the soil is sandy. It affords wholesome food for all cattle, especially sheep. Specially recommended for pasture mixtures. Sow about 30 pounds per acre. **Lb., 50c. Bushel of 12 lbs., \$6.00.**

ITALIAN RYE GRASS.—Is an annual, and should be sown every year at the rate of 50 pounds per acre. It can be sown during August, September or October. It should be mown as early as the blossoms appear, or the hay will not be so good, and it can be cut every month from early spring if the soil and weather are suitable. **Bus., 20 lb. Lb., 30c. 10 lbs., \$1.50. Per 100 lbs., \$13.00.**

ENGLISH RYE GRASS (*Lolium perenne*).—This makes a quick growth very early in the spring, and is adapted for cool, moist locations. 24 lbs. to the bushel; 60 lbs. to the acre. **Lb., 20c. Bushel, \$3.00.**

CRESTED DOG'S TAIL (*Cynosurus cristatus*).—Should enter in moderate quantity in permanent pasture mixtures, and in larger quantities for lawns, as it possesses in a marked degree all the desirable features of a good lawn grass. **21 lbs. to bushel. Lb., 60c. 10 lbs., \$5.00.**

WOOD MEADOW (*Poa nemoralis*).—An early nutritive grass; thrives better under trees than other grasses. Is also an excellent pasture grass. **Lb., 90c. 14 lbs. to bushel.**

SWEET VERNAL (*Anthoxanthum odoratum*).—True perennial; emits an agreeable odor, which it imparts to the hay. **Lb., —.**

TIMOTHY (*Phleum pratense*).

This makes one of the most popular, nutritious and salable of hay grasses. It is best adapted for sowing on clay or heavy loams, low lands or in mountainous districts, although it will do well on any good stiff loamy soils, provided moisture is abundant. It does not succeed nearly as well, however, as Orchard, Tall Meadow Oat or Herd's Grass on soils of a sandy or light loamy texture, and is not of much value for pastureage as other grasses. The stand of Timothy will also be injured if grazed or cut too closely. The yield of hay on good ground is from one and a half to three tons per acre. The best clover to sow with timothy is either the Sapling or Alsike, as they mature and ripen with timothy. **Pound, 15c. Peck, \$1.65. Bushel of 45 lbs., \$6.50.**

RED TOP, OR HERD'S GRASS (*Agrostis vulgaris*).

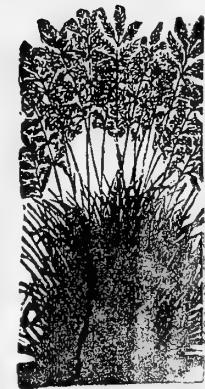
This grass makes excellent pasture and good crop of fine quality hay, and succeeds on a greater variety of soils than any other grass in general use, giving very good results on light soils and the very best results on heavier, moist or low ground soils. It is rather late in starting in the spring and matures its crop at the same time as Timothy. Is excellently adapted for seeding with Timothy for hay, and furnishes excellent pasture afterwards. When it gets well established it will gradually supplant other grasses. The grades of seed usually sold are:

CHAFF RED TOP.—Seed in chaff. Sow 4 to 6 bushels to the acre, 10 lbs. to bushel. **Price, 60c. bushel.**

UNHULLED RED TOP.—Seed in hull, but free of chaff and impurities. Sow 2 to 3 bushels to the acre; 14 lbs. to the bushel. **Price, 1b., 15c.; bus., \$1.75; 100 lbs., 12c. 1b.**

FANCY CLEANED RED TOP.—Hulled seed, free from all impurities. We would advise our customers to sow the Extra Cleaned Unhulled or Fancy Cleaned seed. **Price, 25c. 1b.; \$22.00 per 100 lbs.; bushel of 32 lbs., \$7.00.**

R H O D E I S L A N D B E N T G R A S S (*Agrotis canina*).—A very fine variety for lawns. **1b., 60c.**



KENTUCKY BLUE GRASS.

KENTUCKY BLUE GRASS.—It is rather sensitive to heat, but not so to cold weather, and on this account does its best in the fall, winter and spring. It grows slowly at first, forms a very compact turf, making a fine pasture when once established. It is much the best, however, to combine other grasses with it for either lawn or pasture. Sow in the spring or fall. **Fancy, triple-cleaned. Per lb., 35c. Bus. of 14 lbs., \$4.50.**

ORCHARD GRASS (*Dactylis glomerata*).

One of the best and most reliable grasses for the Middle and Southern States, either for hay or pasture. It succeeds well on nearly all soils, but does best on upland, loamy or moderately stiff soils. It starts early in the spring and continues well into winter. It is of quick growth and relished by stock, especially when young, and bears close grazing. It makes excellent hay, and gives the very best results mixed and grown with Tall Meadow Oat Grass and Red Clover, as suggested under the head of Tall Meadow Oat Grass. It should be cut when in blossom, as the hay is injured if the seed is allowed to ripen. It can be sown in the spring or fall either with grain or alone. Sow 3 bushels per acre if sown alone, or with Red Clover, one and one-half bushels of Orchard and seven pounds of Clover are the quantities usually sown. **Price, 30c. 1b. Bus. of 14 lbs., \$4.00.**

TALL MEADOW OAT GRASS (*Avena elatior*).

Most valuable for pastures on account of its early and luxuriant growth; it produces an abundant supply of foliage, which is relished by cattle, early and late. For hay it may be cut twice a year, and for green soiling it may be cut four or five times in favorable seasons. It is very hardy and withstands extreme drought and heat and cold. Height, 2 to 4 feet. 50 pounds to the acre. (10 pounds to the bushel.) **1b., 50c. 100 lbs., —.**

CRELFING BENT GRASS (*Agrotis stolonifera*).—Excellent for lawns; succeeds well in all conditions; makes a low, velvety growth. **1b., 60c. Bus. (20 lbs.), —.**

MEADOW FOXTAIL (*Alopecurus pratensis*).—Closely resembles Timothy in growth, but has a soft, feathery head. It is a valuable pasture grass by reason of its rapid growth. About 7 pounds to the bushel; 3 bushels to the acre. **1b., 75c. Bushel, —.**

MEADOW FESCUE, RANDALL, or ENGLISH BLUE GRASS (*Festuca pratensis*).

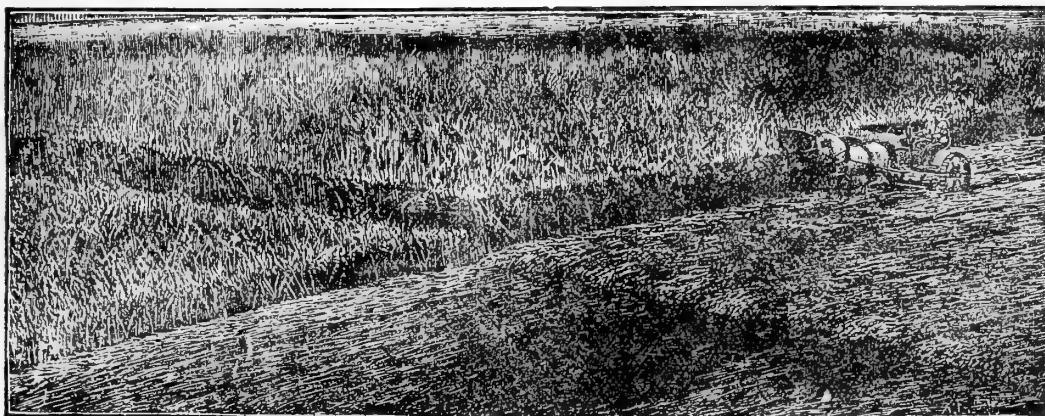
This should be very much more largely used than at present. It makes a very good hay and pasture grass, and is particularly valuable for fall and winter pasture, as it remains green throughout the winter. It is very popular in Southwest Virginia, East Tennessee and the Mountainous districts of North Carolina, where it is very highly appreciated as a large-yielding, nutritious pasture and hay grass. It succeeds well in nearly all sections of the South, and should be very largely used in pasture and hay mixtures, being specially suitable for sowing with Red Top and Timothy for hay, or with these and Orchard and Tall Meadow Oat for permanent pasture. Sow either in the spring or fall at the rate of 50 pounds to the acre. Thrives better under trees than other grasses. **22 lbs. to bus. 1b., 35c. 100 lbs., —.**

AWNLESS BROME GRASS (*Bromus inermis*).—Comparatively a new grass in this country, but in Hungary (Europe), its principal home, it is the chief meadow grass of the sandy moorlands. It grows coarse, resembling Orchard Grass; prefers light, dry soil. It roots deeply, and stands protracted droughts well, and will thrive upon soils too poor and dry to grow anything else but broom sedge; hence is valuable for such situations, both for grazing and hay, and especially in mixtures with other grasses. It has, however, been talked up very much in the agricultural press, especially in the West, and is worthy of extended trial. Sow at the rate of from 35 to 40 pounds per acre when sown by itself, either in the spring or fall. **1b., 50c. Bushel of 14 lbs., —.**



ORCHARD GRASS.

GRASS MIXTURE FOR HAY AND PERMANENT PASTURES



MIXTURE FOR UPLAND.—14 lbs. to the bushel, 3 bushels to the acre. Per bushel, \$4.25; 10 bushels for \$40.00.
MIXTURE FOR LOWLAND.—14 lbs. to the bushel, 3 bushels to the acre. Per bushel, \$4.25; 10 bushels for \$40.00.

Prepared especially to meet the demand for a mixture that will be desirable for cutting for Hay or to use for Pasture, and contains such grasses as are best adapted for these purposes. In ordering, please state whether you want a mixture for upland or low ground.

GRASS AND CLOVER SEED MIXTURES, FOR MOWING FOR HAY, BUT CAN BE GRAZED

We have in the following mixtures combined grasses suitable for the various soils for which they are recommended. They are composed of grasses which will give an even growth for mowing for hay. We have also combined them so as to give a splendid pasture from early spring until late fall if desired.

The different mixtures are prepared from seeds of the finest quality, and only those are used best adapted to the soils and situation for which they are intended.

MIXTURE No. 1.—For Moist Bottom Lands. Sow 25 lbs. to the acre. Price, Lb., 30c. 10 lbs. and over, 28c. per lb.

MIXTURE No. 2.—For Light, Dry, Gravelly or Sandy Soils. Sow 35 lbs. to the acre. Price, Lb., 20c. 10 lbs. and over, 28c. per pound.

CLOVERS



ALSIKE CLOVER.

CRIMSON CLOVER.

WHITE CLOVER.

RED CLOVER.

LUCERNE OR ALFALFA CLOVER.

RECLEANED RED CLOVER.—We take great pains to supply an extra quality of Red Clover at a reasonable price. Farmers should not sow a poor quality of Clover Seed. We have, however, cheaper grades for those who wish them. 55c. lb.

Ask for prices in large quantities.

ALSIKE OR SWEDISH CLOVER.—Hardest of all the Clovers, and on rich, moist soils yields an enormous quantity of hay or pasture. Valuable for sowing with other Clovers or grasses, as it forms a thick bottom and increases the yield of hay. Sow, either fall or spring, 6 pounds per acre when used alone. Lb., 55c.

Ask for prices in quantity.

WHITE DUTCH CLOVER.—Thrives most everywhere. The best to sow with lawn grass and valuable to sow with blue grass for permanent pastures. $\frac{1}{4}$ lb., 15c. $\frac{1}{2}$ lb., 30c. 1 lb., 60c. By mail, lb., 65c. 10 lbs., by express, not prepaid, \$6.00.

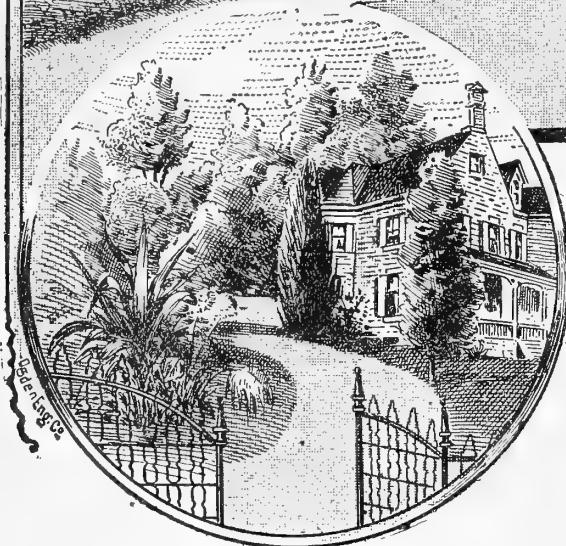
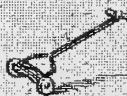
LUCERNE OR ALFALFA CLOVER.—One of the most valuable among Clovers, resisting drought and remaining green when other sorts are dried up. Sow on rich, moist loam or sandy soil. Prepare the land thoroughly and sow, either fall or spring, 20 pounds to the acre. Lb., 40c. Special prices in large quantities on application.

CRIMSON CLOVER (The Great Nitrogen Gatherer).—The best crop for hay, silage and green manuring—all winter and spring pasture. For hay it must be cut before it comes into full bloom, as otherwise it may cause hair-balls to form in the animal's stomach. It is used on poor and rich land. It is seeded in this country in June, July, August, September and October, and will produce an enormous crop early in the following spring, suitable either for consumption as green food or for hay. 15 to 20 pounds should be sown to the acre, according to the quality of the ground. 20c. per lb. Write for prices in quantity.

WRITE FOR SPECIAL PRICES ON ABOVE.

Lawn Grass Seed

THE LAWN



PREPARATION AND CARE OF LAWNS

THE ground should be thoroughly drained and well enriched before sowing. Work the soil until well pulverized, and have the surface as smooth as possible, so that the grass may present an even appearance. After sowing, cover seed lightly and follow with roller. The best results are obtained by using plenty of seed, four bushels to the acre being about the right quantity. One quart is sufficient for 300 square feet. Let the grass obtain a good start before cutting, and then it should be trimmed with a lawn-mower about every ten days. Old lawns may be improved and renewed by the application of fertilizers and seeding about half the quantity of seed required for new lawns. This should be done whenever they show any thin places.

GRIFFITH & TURNER CO.'S EVERGREEN LAWN GRASS

This is a first-class mixture prepared by ourselves, and containing nothing but choice seeds—just the thing for tennis, croquet and ball grounds, remaining green and fresh during the hot summer months. Widely known and extensively used on the finest private and public grounds around Baltimore, Washington and elsewhere with the most satisfactory results. Nothing adds to the attractiveness of suburban homes more than a well-kept, closely-cut, velvety lawn; hence the importance of securing the best seeds. This we offer in our selected Evergreen Lawn Mixture, containing different varieties that grow and flourish at different months of the year, so that a rich, green, velvety lawn is constantly maintained. It is adapted to the small grass plots of city homes. Pint, 15c. Quart, 25c.; by mail, 30c. $\frac{1}{2}$ -Peck, 75c. Peck, \$1.50. Bushel of 20 pounds, \$6.00. By freight or express not prepaid.

PARK LAWN GRASS

This mixture does not contain so much of the high-priced grasses as our Evergreen Lawn Grass, but it is superior to many of the cheap grades offered, and will make a very nice lawn. Quart, 25c. Peck, \$1.25. Bushel of 16 Pounds, \$5.00.

GRIFFITH & TURNER CO.'S GOLF LINK MIXTURE

There being a growing demand for a grass mixture suitable for golf and cricket grounds, we have made a study of the grasses best adapted to these purposes, and have them mixed in proper proportions to give desired results. Many of the public and private grounds around Baltimore and other places have been sown with our mixtures, and the grounds have won the admiration of thousands of visitors. It is highly essential that golf and cricket grounds should be mowed closer than ordinary lawns. 14 pounds to bushel. Bushel, \$6.00. 10-Bushel Lots, \$5.50 Bushel.

SHADY NOOK GRASS

On nearly all lawns there are bare spots under the shade of trees. With this mixture the above can be easily corrected. It is a combination of grasses which are found growing in the woods in their natural state. Ground that has been densely shaded by trees is frequently "sour" and is apt to be covered with moss. In such cases apply slacked lime at the rate of one bushel per thousand square feet, but the moss should be first removed with a rake. Price: Lb., 35c. 5 lbs., \$1.65. Bushel of 20 lbs., \$6.00. Add 8c. for postage.

"TERRACE" SOD MIXTURE

A special mixture of grasses best suited for sowing on terraces, railroad embankments and side hills—grasses that produce strong, spreading roots, thus preventing heavy rains from washing them out; that will withstand drought and exposure, thrive on shallow soils, and at the same time produce a rich, velvety green turf throughout the season. Qt., 35c. Peck, \$2.00. Bushel of 20 lbs., \$6.00.

WHITE DUTCH CLOVER (TRIFOLIUM REPENS)

The best variety for lawns, as it forms a close herbage and remains green throughout the season. It is also valuable when mixed with grass seeds for pasture. Sow in spring at the rate of 6 pounds per acre when sown alone; half the quantity when sown with other grasses. Pound, 60c. By mail, 65c. 10 pounds, by express, not prepaid, \$6.00.

UNITED STATES FOOD ADMINISTRATION LICENSE NO. G 22972.

FORAGE AND SILO SEEDS

SHOULD BE SOWN IN THIS LATITUDE, NOT BEFORE MAY 15th, AS THE SEED WILL NOT STAND COOL, WET WEATHER.

COW PEAS



COW PEAS

The great soil enricher. Makes poor land rich and good land better. They also make good green forage for ensilage, and the best quality of Hay when cut and cured.

The sowing of **COW PEAS** is one of the cheapest as well as the best means of improving the soil. They can be turned down for green manuring, or, if allowed to ripen, cut Peas off and cure for hay; turn down roots, which will give as good results as when whole plant is used. For ensilage they are unsurpassed, being more nutritious than green corn, but when used for this purpose, would advise sowing Sugar Cane or Sorghum in connection with them. The two combined will make one of the very richest feeds. Ask for prices.

BLACK—This is the standard variety, and the one most largely grown in this immediate section. It is very prolific, makes a fine growth, both of vine and leaves, and a good yield of peas. It is a splendid land-improver, and most valuable as a forage crop, and makes an enormous yield of rich, nutritious feed.

WHIPPOORWILL—A favorite, early, upright-growing variety, more largely used and sold than any other kind. Has brown speckled seed, which are easily gathered. Makes a good growth of vine, which can be easily cut and cured as dry forage. We recommend this where an early variety of good growth and height is desired.

WONDERFUL, OR UNKNOWN—This makes an enormous and remarkable growth of vines, but requires the full growing season to make its crop. In yield and growth of vines it surpasses any of the varieties of Cow Peas, and it produces very largely of the shelled peas. This variety should be planted in May in order to come to full maturity.

NEW ERA—An early maturing variety which has proved very popular and satisfactory. It is upright growing, quick to mature, and remarkably prolific of peas. Rather small vine, which cures easily, making splendid dry forage. The seed are smaller in size than the ordinary cow-pea, so that it does not require as many to seed an acre; from three-fourths to one bushel per acre will give ample seeding. **PRICES ON APPLICATION.**

SORGHUM, OR SUGAR CANE

EARLY AMBER grows 10 to 12 feet high, and yields large crops of fodder, which is relished by all kinds of stock. It will produce two cuttings during the summer. Sow 3 or 4 quarts per acre in drills and cultivate same as corn. For hay, sow one bushel per acre broadcast. **Pound, 10c. Peck.**

EARLY ORANGE has a large, strong growth, but requires longer time to mature than the Early Amber. Very popular in the South, where there are long seasons. **Prices same as Early Amber.**

SOJA BEANS

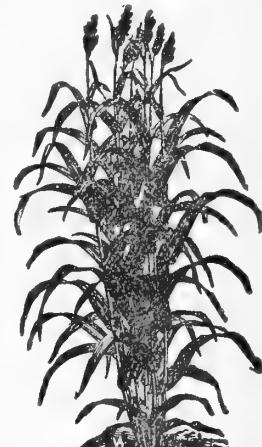
The great drought-resisting forage crop; unsurpassed in nutritive value for feeding; also makes a splendid soil improver. Sow broadcast one-half bushel to the acre, or it may be planted in drills three feet apart and one foot between plants. Price on application.

MAMMOTH YELLOW SOJAS

The largest-growing and most popular of soja beans for forage purposes. A little later in maturity than other kinds, but makes larger yields, both of forage and seed. Especially valuable for the South.



SOJA BEANS



EARLY AMBER CANE

HOLLYBROOK EARLY SOJAS

Makes a quicker growth and matures their crop two to three weeks earlier than the Mammoth Yellow Soja. It makes a large yield, both of forage and peas, and the added advantage of its earliness makes it a most distinct and valuable acquisition. It is a sure cropper and a vigorous, quick-growing variety. Sown as a forage or hay crop, it is much easier to cure and handle, and makes even a more nutritious crop than cow-peas.

WILSON BLACK SOJAS

One of the best, in our opinion, for the North-eastern States, where a quick, early variety is desired. Average height on good land is 2½ to 3 feet. A very prolific variety, and requires about 90 days to be ready to cut for hay.

KAFFIR CORN

The heads contain small white seeds, which make an excellent flour. They are greedily eaten by horses and cattle, and make fine feed for poultry, either fed in the grain or ground and cooked. Use 4 to 5 lbs. to acre. **Price, Pound, 10c. Ten Pounds,**



GENUINE KAFFIR CORN

ASK FOR QUOTATIONS ON ABOVE.

U. S. FOOD ADMINISTRATION LICENSE NO. G 22972.

GERMAN MILLET

GERMAN MILLET.—A fine, quick-growing summer Hay crop. Produces splendid crops of fine nutritious hay. Grows quickly and easily cured. Should be sown thick, not less than one bushel per acre. Cut while in flower. Do not wait until seed becomes hard in head. If allowed to get too ripe stalks get hard and do not make as good quality of hay as when cut at proper time. It should be sown any time after middle of May up to first of August. Should not be sown too early, as seed will not germinate until soil and weather is warm. A crop will mature in seven to eight weeks in ordinary warm growing weather. Price, Lb., 10c. Peck, \$1.25. Ask for price by the bushel.

HUNGARIAN MILLET

HUNGARIAN MILLET is of the same family as German Millet, but is not used as extensively, as it requires stronger soil. However, it makes a very fine quality of hay, and like German Millet is fairly good substitute for Timothy. Hungarian Millet can be sown at the same time as German. Price, Lb., 10c. Peck, \$1.25. Ask for price by bushel.

CANADA FIELD PEAS

Sown in February, March or April, with a small quantity of oats, they make large yield of forage. Sow 1 to 1½ bushels per acre broadcast with half a bushel of oats. Cut for hay before the peas mature.

Write for Special prices if a quantity is required.

BROOM CORN

50 Pounds to Bushel.

To grow Broom Corn successfully the ground should be rich and well prepared. Plant seeds in rows 3 feet apart by 18 inches. The plants should be cultivated as soon as they are out of the ground. Harvesting should be done when the seed is in a soft, milky condition.

IMPROVED EVERGREEN.—This is the favorite sort; has a fine brush, yields well and keeps green. Height, 8 to 9 feet. Lb., 25c., postpaid. 10 lbs. @ 20c. lb.

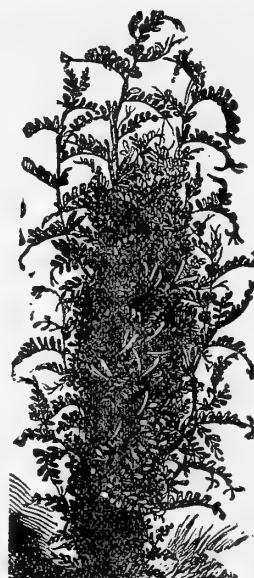
JAPANESE EARLY BROWN CORN (New).—Two weeks earlier than the ordinary variety. Lb., 30c. 10-lb. lots @ 25c. lb.

RUSSIAN SUNFLOWER

Growing to double the size of the common sunflower and the yield of seed is twice as great. It is highly recommended for poultry—the best egg-producing food known. Lb., 15c.

DWARF ESSEX RAPE

It can be sown all through the season; being perfectly hardy, withstands the drought, and will produce a crop in any soil by sowing broadcast at the rate of 5 lbs. to the acre, or 2 to 3 lbs. in drills. It is unequalled as a pasture for sheep, and as a fattening food for all kinds of live stock it is without a rival. Lb., 18c.; by express, 10 lbs. and over, 17c. lb., not prepaid; \$16.00 per 100 lbs. If wanted by mail, add 8 cents for postage.

**VETCHES OR TARES**

SPRING VETCHES (*Vicia sativa*).—Closely associated with peas in character. Highly valuable for soiling or for green manuring. Sometimes grown with oats for mowing and feeding to stock. Use 40 to 60 lbs. to the acre. Sow in spring while ground is cool and moist, or in early autumn. Pound, 25c. Peck of 15 Pounds, —.

WINTER VETCHES (*Vicia villosa*)—Also called Sand Vetch or Hairy Vetch. Recommended for fall sowing with rye, as in many localities in the North it is hardy, remaining green all winter. A valuable food for stock in early spring. Use 30 to 50 lbs. per acre. Pound, 40c.

TEOSINTE

A most valuable and enormous-yielding cutting forage crop, but should be planted very early to succeed well. Good to use as green food, and also makes an excellent fodder. It branches as many as 50 stalks from one seed. Plant in May or June in rows 4 to 5 feet apart each way. Oz., 10c. 1/4 Lb., 35c. Lb., \$1.25, postpaid.

FLAXSEED.—Lb., 20c. 3 lbs., 50c.

PRICES SUBJECT TO CHANGE. ASK FOR QUOTATIONS ON QUANTITIES.

VETCHES.

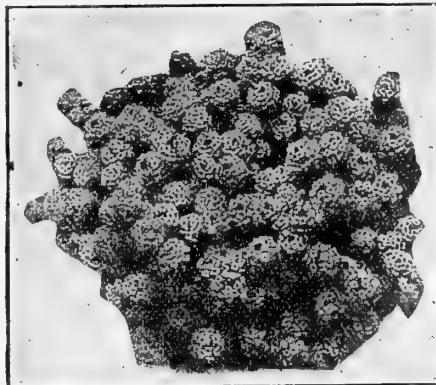
FLOWER SEEDS ORDER BY NUMBERS

GENERAL DIRECTIONS FOR CULTIVATION.

Hardy Flower Seeds should be sown in the open, after danger of frost is past, in well-worked and moist soil. Seeds of medium size, put at depth of one-quarter to one-half inch. Very fine seeds, press into the soil, and cover slightly with a little sand or sphagnum moss. If seed is not deep, water frequently. When up, transplant from two to twelve inches apart, according to variety of plants. Do not leave too thick, as the plants will be weak and spindling. Keep weeds out of the flower beds. Annuals may be planted in early spring, and bloom the first season only. Biennials bloom the second year from seed and then die. Perennials bloom the second year from seed, and plants live to bloom during successive years.

Varieties marked ("A") stand for Annuals. Marked ("B") Biennials. Marked ("P") Perennials.

1. AGERATUM—Mixed (A)—Feathery flowers borne in dense clusters, blooming nearly all summer, and useful for bouquets, borders or bedding. Mostly White and Blue blooms. Packet, 5c. each.



TOM THUMB ALYSSUM.

2. ALYSSUM, Sweet (A)—Small white flowers of delicate fragrance. Sow seed in open ground, very early in spring. Packet, 5c.

11. ALYSSUM (A) (Tom Thumb)—Of dwarf, compact habit, each plant covering a circle from 15 to 30 inches. It will bloom when small, and remain covered with bloom from spring to autumn. Packet, 5c.

20. AMARANTHUS, MIXED (A)—Showy blooming plants, with long racemes of curious-looking flowers and brilliant foliage; half-hardy annuals. Packet, 5c.

21. AMARANTHUS, TRI-COLOR (Joseph's Coat) (A)—Red, yellow and green foliage; 2 feet. Packet, 5c.

22. AMARANTHUS CAUDATUS (Love Lies Bleeding) (A)—Graceful and handsome flowers of blood-red hue. Packet, 5c.

24. ANTIRRHINUM, MIXED (P)—(Snapdragon)—Half-hardy, growing from 1½ to 3 ft.; oddly-shaped flowers on long spikes; easy culture. Packet, 5c.

ASTERS

Sow seed in March and April in cold-frame or boxes in the house, covering them $\frac{1}{4}$ -inch deep, and when plants have three or four leaves, transplant about 18 inches apart each way into well-prepared beds.

25. CHINA (A)—Choice mixed varieties. Packet, 5c.

27. TRUFFAUT'S PERFECTION (A)—A very favorite class; thrifty, upright growers; flowers large, almost perfectly round, with incurved petals. The florist's preference; 1½ to 2 feet. Packet, 10c.

28. PRINCESS SNOWBALL (A)—The flowers are pure white, and are formed of short, thickly set imbricated petals, there being about 25 to 30 on a plant. Packet, 10c.

30. VICTORIA (A)—The most beautiful of all Asters, bearing flowers of all colors and shades; the colors include many extremely delicate and gorgeous shades. Very double and four inches across; height, 15 to 18 inches. Packet, 10c.

31. COMET (A)—This class of Asters has long, slender and curled petals, forming loose yet dense flowers of semi-globe shape, 3½ to 4½ inches in diameter, which resemble the Japanese Chrysanthemum. Packet, 10c.

33. BRANCHING, MIXED (A)—A choice strain of American-grown Asters, which has, by careful selection, been brought to a high degree of excellence. Packet, 10c.



33—SEMPEL'S BRANCHING.

34. BRANCHING (A) (White)—Very choice. Packet, 10c.

35. BACHELOR'S BUTTON, or BLUE BOTTLE (A)—Centaurea Cyanus)—A very old favorite garden annual, with handsome flowers of various colors. It does best if sown in a hot-bed; half-hardy annuals; 2 feet. Packet, 5c.

40. DOUBLE BALSAMS, CAMELLIA FLOWERED (A) (Lady Slipper)—One of the finest summer-blooming annuals, free bloomers and highly colored. By transplanting them once or twice, the flowers are apt to be more double. Pkt., 5c.

41. BALSAM, PERFECTION WHITE (A)—This resembles the mixed Balsams in shape, but the flowers are of a pure white. Packet, 10c.

CANDYTUFT—Almost as fragrant as Sweet Alyssum; very popular and useful as bedding plant or border work. Sow out of doors early in spring, where they are to bloom, and thin well when the plants grow about an inch; then sow again in July for fall flowers.

45. MIXED (A)—Packet, 5c.

46. WHITE (A)—Packet, 5c.

53. CALENDULA, DOUBLE (A)—Very profuse dwarf bushy annuals, blooming continuously and profusely until frost; of easy culture, and suitable for summer garden or for growing in pots in winter. Packet, 5c.

55. CANNA, MIXED (Extra Choice) (A)—The Cannas are desirable not only for the beauty of their spikes of flowers, but for their highly ornamental leaves. They make superb beds for the lawn. Soak the seeds thoroughly before planting, and keep in a warm spot. Very slow to germinate. Packet, 5c.

CANTERBURY BELLS—Beautiful hardy biennials, bearing a profusion of bell-shaped flowers of exquisite colors. Does best in a rich, light soil. Height, 2½ feet.

60. CANTERBURY BELLS, SINGLE MIXED (Campanula) (B)—Packet, 5c.

61. CANTERBURY BELLS, DOUBLE MIXED (B)—Packet, 5c.

FLOWER SEEDS THAT GROW



CALLIOPSIS.

88. COWSLIP (P).—Beautiful hardy spring flowers of different colors. **Packet, 10c.**

90. CONVOLVULUS, TRI-COLOR MINOR (Dwarf Morning Glory) (A).—A beautiful class of hardy annuals, affording a large, showy mass of flowers from July to October. **Packet, 5c.**

93. COREOPSIS (Calliopsis) (P).—Beautiful annuals, with large bright golden yellow flowers, varied with rich brown. Excellent for cutting and decoration. Height, 2 feet. **Packet, 5c.**

93a. COREOPSIS LANCEOLATA (P).—IMPROVED (California Sunbeams).—This is one of the finest of hardy plants, with large, showy, bright golden-yellow flowers, freely produced on long stalks, from June till frost; excellent for cutting; will thrive in almost any situation. **Packet, 5c.**

COSMOS

COSMOS. One of the very finest late summer and fall flowers; excellent cut flowers. The bushes grow tall, six to eight feet, and are loaded with large showy blossoms, in white, pink or crimson. Cosmos should be in every garden. Sow the seed early and transplant, or later in spring where it is to remain. Hardy annual.

94. Early Flowering Dawn (A).—White slightly tinted with pink. **Packet, 10c.**

95. Mixed (A).—**Packet, 5c. Oz., 25c.**

95a. Pink (A).—**Packet, 5c.**

95b. White (A).—**Packet, 5c.**

95c. Crimson (A).—**Packet, 5c.**

95d. NEW MARGUERITE COSMOS (A).—One of the prettiest and daintiest varieties imaginable. **Packet, 10c.**

68a. CENTAUREA GYMNOCARPA.—Fine Cut silver-gray foliage; 1½ feet. **Packet, 5c.**

68. CENTAURA CANDIDISSIMA.—Silver white; leaves broadly cut. **Packet, 5c.**

70. CHRYSANTHEMUMS, SINGLE, MIXED (A).—Showy and effective garden favorites extensively grown for cut flowers. The hardy annuals are summer flowering border plants; good for pot culture and quite distinct from the autumn flowering varieties. **Packet, 5c.**

71. CHRYSANTHEMUMS FRUTESCENS (A).—(The Marguerite, or Paris Daisy.)—It produces freely its white, star-like flowers under the most favorable conditions. **Packet, 10c.**

CINERARIA.—Seed should be sown in well-drained seed pans or shallow pots of light rich soil, giving the seed but a very slight covering. Place a piece of glass over the pot to retain moisture. When the plants have made their first pair of leaves they should be potted off into smaller pots. As fast as the pots are full of roots, shift into larger ones till the flowering size is reached.

75. CINERARIA (Dusty Miller) (P).—Fine for bedding, ribbon beds and margains; prized for their beautiful, downy, silvery foliage; half-hardy perennials; 2 feet. **Packet, 5c.**

76. CINERARIA HYBRIDA (P).—Large flowered prize varieties; very attractive, free blooming plants, producing large and brilliant flowers.

77. CINERARIA HYBRIDA DWARF (P).—Large flowered, dwarf prize varieties; splendid strain.

80. CLARKIA (A).—Hardy annual, of easy cultivation, graceful in habit and growth. Long stemmed flowers, resembling chrysanthemums, growing 1 foot high, from July to October. **Packet, 5c.**

85. COCKSCOMBS (Celosia Cristata) (A).—Very popular annuals of the easiest culture, highly ornamental for decoration of the greenhouse, drawing-room and garden. Half-hardy annuals. **Packet, 5c.**

86. COCKSCOMBS, GLASGOW PRIZE (A).—Immense, showy, dark crimson combs. **10c.**



COSMOS

CHOICE FLOWER SEEDS

DAHLIA.

One of our best autumnal flowering plants. Blooms until killed by frost; tuberous-rooted, half-hardy perennials, blooming the first year from seed if sown early.

100. **SINGLE MIXED (A)**—Large, showy flowers. **Packet, 5c.**

100a. **CACTUS DAHLIA (A)**—A most curious and desirable variety of many colors. **Packet, 5c.**

DAHLIA ROOTS AND PLANTS IN GREAT VARIETY—(See Plant Department for full description of the many kinds and prices.)



DAISY.



GAILLARDIA.



DEFIANCE
MIGNONETTE.

Well-known favorites, admirably adapted for edgings, borders and low beds, and it is also suited for growing in pots. Although they are perennials, they will flower the same season if seed is sown early in the house.

97. **DAISY, MIXED (P)**—Packet, 10c.

98. **LONGFELLOW (P)**—Large, double pink. **Packet, 10c.**

99. **SNOWBALL (P)**—Very double, pure white flowers. **Packet, 10c.**

103. **FEVER-FEW (GOLDEN FEATHER) (Pyrethrum Aureum) (P)**—A highly ornamental golden-yellow foliage plant, unexcelled for bedding. Hardy perennial; 1½ feet. **Packet, 5c.**

105. **FORGET-ME-NOTS (Myosotis) (P)**—Neat and beautiful little plants, with star-like flowers, succeeding best in a shady, moist situation; half-hardy perennials; blooming the first year from seed if sown early. **Packet, 5c.**

106. **FOXGLOVE (DIGITALIS) (P)**—A handsome and highly ornamental hardy perennial plant of stately growth; fine for shrubberies and other half-hardy places; 3 feet. **Packet, 5c.**

107. **GERANIUM (New Zonale) (A)**—A grand strain of Geraniums, containing all shades of colors. **Packet, 10c.**

108. **GODETIA**—Profuse-blooming annuals of beautiful colors; fine for bedding or pot culture. Hardy annuals. 1 foot. **Packet, 5c.**

109. **GAILLARDIA (A)**—Very attractive plants, producing a profusion of bloom the entire summer and autumn. Half-hardy annuals. **Packet, 5c.**

110. **GILIA MIXED (A)**—Very pretty dwarf plants, early, free blooming; fine for massing and rock work. Hardy annuals. **Packet, 5c.**

112. **HELIOTROPE**—A half-hardy perennial, growing 4 to 8 feet high. Small flowers, borne in graceful clusters, and very fragrant. Will bloom the first season from seed if sown early. **Packet, 5c.**

115. **HOLLYHOCK, CHATERS SUPERB MIXED (P)**—Perennial plants of stately growth. The blossoms are set as double and semi-double rosettes around the flower stalk in almost every color. Makes a charming hedge or background. **Packet, 5c.**

116. **HOLLYHOCK, CHATERS DOUBLE WHITE (P)**—Packet, 10c.

120. **LARKSPUR (Delphinium) (A)**—One of the most showy and useful plants, possessing almost every requisite for adornment of the garden. **Pkt., 5c.**

121. **LARKSPUR EMPEROR (P)**—Of symmetrical bushy habit, with a profusion of brilliant dark-blue, red-striped and tri-colored flowers. **Packet, 5c.**

LOBELIA.

A beautiful and popular flower, very desirable for pot culture, beds or hanging baskets because of its trailing habits. Grows easily, and does well in beds and rockeries. Bears a profusion of blue and white flowers.

122. **MIXED VARIETIES (A)**—Packet, 5c.

123. **CRYSTAL PALACE COMPACTA (A)**—Rich deep blue. The finest for bedding. **Packet, 10c.**

MIGNONETTE—The delightful fragrance of the Mignonette makes it a universal favorite. Sow seed in the fall for early blossoms in the spring. Valuable for potting, bedding or for border.

135. **MIGNONETTE — SWEET (Reseda Odorata)**—A well-known and universal garden favorite, and one that requires no extra instructions for growing. Hardy annuals.

Packet, 5c. Oz., 15c.

136. **MIGNONETTE—PYRAMIDAL**—Large flowered. The largest flowered of all Mignonettes. Annual. **Packet, 5c.**

137. **MACHET**—True dwarf-growing variety; enormous spikes of beautiful, deep reddish crimson flowers; height, 1 foot. **Per Packet, 10c.**

138. **MIGNONETTE VICTORIA (A)**—A splendid new, compact-growing variety of dense pyramidal, growing about six inches high. The flowers are of a brilliant red, and are suitable for pot or garden. **Packet, 10c.**

139. **ALLEN'S DEFIANCE (A)**—When grown under favorable conditions, and with proper care, spikes will not only be of remarkable size—from 12 to 15 inches long—but deliciously fragrant; much more so than any other variety. **Packet, 10c.**

140. **GOLDEN MACHET MIGNONETTE (A)**—Distinct new variety of the well-known Machet of the same compact and robust habit, but differing from the type by its massive spikes of golden-yellow blossoms.

Packet, 5c.

HIGH-GRADE FLOWER SEEDS

125. MARIGOLD, DOUBLE AFRICAN (A)—A well-known free-flowering plant, of easy culture, with rich and beautiful double various-colored flowers. **Packet, 5c.**

126. MARIGOLD, DOUBLE FRENCH (A)—Of compact habit, with numerous bright, showy flowers. Very fine. **Packet, 5c.**

130. MARVEL OF PERU, OR FOUR O'CLOCK (Mirabilis Jalapa) (A)—Very pretty annual of vigorous growth. The flowers are brilliant, singularly mixed and varied on the same plant. Two feet. **Packet, 5c.**

131. MATHIOLA BICORNIS (A)—Flowers dull purplish-lilac, but well worth growing for the charming fragrance which it emits during the evening. **Packet, 5c.**

133. MESEMBRYANTHEMUM CRYSTALINUM (Ice Plant) (A)—Dwarf spreading plants of great beauty, blooming the entire summer, succeeding best in dry, sandy or loamy soil, and in a warm locality. Half-hardy annuals. **Packet, 5c.**

134. MIMULUS—The beautiful Monkey Flower. **Packet, 5c.**

NASTURTIUMS

Few plants are so useful or rich in color as the Nasturtiums. When well started, young plants should be transplanted or thinned out to stand six or more inches apart. Seed should be covered one inch in depth and, if at all dry, the soil should be firmly pressed above the seed, so as to enter closely the corrugations.

142. DWARF MIXED—The dwarf variety of Nasturtium is among the most useful and beautiful of annuals for bedding, massing, etc., owing to their compact growth, richness of color and profusion of bloom; mixed colors.

Packet, 5c. Oz., 15c.

143. DWARF—AURORA—Blush white and salmon, blotched with garnet. **Packet, 5c. Oz., 15c.**

144. DWARF—BEAUTY—Bright scarlet, striped with yellow. **Packet, 5c. Oz., 15c.**

145. DWARF (Empress of India)—Very dark foliage, with deep crimson flowers. **Packet, 5c.**

146. DWARF (Golden King)—Brilliant yellow, with dark foliage. **Packet, 5c.**

147. DWARF (King of Tom Thumb)—Brilliant yellow flowers, blotched with maroon; dark foliage.

Packet, 5c.

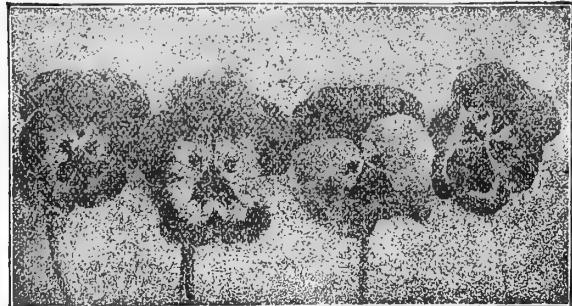
148. DWARF (Ruby King)—Light ruby red. **Packet, 5c.; oz., 15c.**

149. DWARF (Cloth of Gold)—Golden yellow foliage, light scarlet flowers. **Packet, 5c.**

150. KING THEODORE—DWARF—Scarlet maroon; black-brown foliage. **Packet, 5c.**

310. TALL MIXED—Elegant, profuse, flowering plants, constantly growing in favor for verandas, trellis, etc. The seed pods can be gathered while green and tender for pickling. **Packet, 5c.; oz., 10c.**

PANSIES--Annuals



155. HEARTSEASE—Mixed. An old but universally admired plant, producing an endless variety of color. They may be treated as annuals. **Packet, 5c.**

156. GIANT TRIMARDEAU—Remarkable for the extra large size of the flower and an endless variety of beautiful shades. **Packet, 10c.**

157. G. & T. CO.'S EXTRA MIXED—This mixture, containing the finest blotted varieties, is grown and selected with special care, and has given the most satisfactory results to both florists and amateurs in the past. **Packet, 15c.**

NASTURTIUM



Thrive best in a moist, shady location, and in rich, loamy soil. Seed should be sown in the autumn for early spring blossoms, or can be sown early in the year for good flowers late in the spring. The plants must be transplanted twice in order to get the largest flowers; once from the seed box to a chosen bed, and again to the open garden. This is important for large-size pansies; use manure liberally. The blossoms are usually larger in the spring and again in the fall, and while they bloom freely all summer, the blossoms are small during the hot months. While the plants carry over well with a little covering during the winter, it is best to plant new seed each year.

PETUNIAS:



Favorite, half-hardy, succeeding well in any rich soil. For the brilliancy and variety of the colors, and the long duration of their blooming period, they are indispensable in any garden. Sow seed early in spring, scatter

thinly on an even surface, and barely cover the seed with sand. If intended for the open ground, prick out into a frame to be kept till planting-out time. If for pots, pot singly into small pots in strong rich soil mixed with sand, and shift as the plants grow larger.

FINE MIXED—Good mixture of small free-blooming colors. **Packet, 5c.**

167. DOUBLE PETUNIA—About 30 per cent. will produce double flowers. **Pkt., 25c.**

168. PETUNIA — Double-Fringed Mixed—The flowers of this sort being double, together with being fringed, are very beautiful. **Pkt., 25c.**

175. PHLOX DRUMMONDII (A)—A most brilliant and beautiful hardy annual, about 1 foot high, well adapted for bedding, making a dazzling show through the whole season. It succeeds well on almost any soil. **Packet, 5c.**

176. PHLOX DRUMMONDII—(Nana Compacta) (A)—Very fine mixed. This new strain is of dwarf, compact habit, and makes desirable pot plants; also excellent for ribbon lines and massing. **Packet, 10c.**



RICINUS (Castor Bean).

RELIABLE

FLOWER SEEDS

PINKS—(DIANTHUS).

Seed may be sown in the open ground in spring after danger of frost is past in the place where the plants are wanted to bloom. Use well-pulverized soil, preferably sandy loam. Make the rows one foot to 15 inches apart, and cover the seed with one-fourth inch of fine soil, firmly pressed down. When 2 inches high, thin 6 to 8 inches apart.

180. PINK CARNATION, or PICOTEE. (Choicest Double Mixed Dianthus Caryophylus)—Carnation and Picotee Pinks are generally favorites for their delicious fragrance, richness of colors and profuse bloom. Perennial. **Pkt., 10c.**

182. PINK CARNATION—MARGUERITE—These lovely, fragrant Carnations produce fine double flowers. From seed sown in the garden early in the spring, the plants begin to bloom in about four months. All colors mixed. The finest strain. **Per Packet, 10c.**

185. PINK—(CHINA OR INDIAN PINK)—Blooms in clusters, flowers very double and bloom in a large range of bright colors. **Packet, 5c.**

188. PINK—HEDDEWEGI (P)—Beautiful double flowers in a great variety of colors, with fringed white edges. **Packet, 5c.**

200. POPPY-CARNATION (Papaver) (A)—A showy and easily cultivated hardy annual, with large brilliant colored flowers, growing freely in any garden soil. **Packet, 5c.**

201. POPPY—PEONY FLOWERED (A)—A magnificent species, large, showy, double globule flowers, resembling Peonies in shape. **Packet, 5c.**

202. SHIRLEY POPPY (A)—These beautiful Poppies are generally single or semi-double. The colors, extending from one extreme to the other, are so varied that scarcely two are alike, while many are striped and blotched. The blooms, if cut when young, will stand for two or three days. **Packet, 5c.**

203. TULIP POPPY (A)—A magnificent species. The plants attain a height of 14 to 16 inches, and produce from about 50 to 60 flowers of the brightest scarlet. **Packet, 5c.**

204. ICELAND POPPIES, MIXED (A)—Although hardy perennials, these Poppies bloom the first season from spring-sown seed. The fragrant, elegant, crushed satin-like flowers are produced in never-ceasing succession from the beginning of June to October. **Packet, 5c.**

195. PORTULACA (Mexican Rose) (A)—One of the finest hardy annual plants, of easy culture, thriving best in rather rich, light loam or sandy soil; the single-flowering varieties are large and brilliant, of the richest shades of color, and produced throughout the summer in great profusion; fine for massing in beds or edgings of rock work. **Pkt., 5c.**

196. DOUBLE PORTULACA (A)—**Packet, 10c.**

RICINUS (Castor Bean).

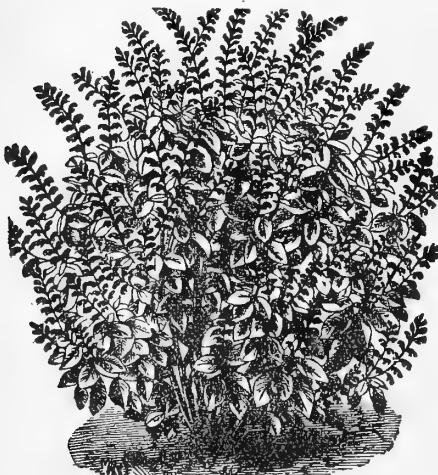
Stately, strong-growing plants, with very ornamental foliage, well adapted as center plants of groups of Cannas, Dahlias, etc. Moles are troublesome in many gardens, but they may be kept away by planting Castor Beans in the borders.

212. RICINUS, CAMBOGIENSIS (A)—Large leaves, dark bronzy-maroon; stalk and stems nearly black; 5 feet. **Packet, 5c.**

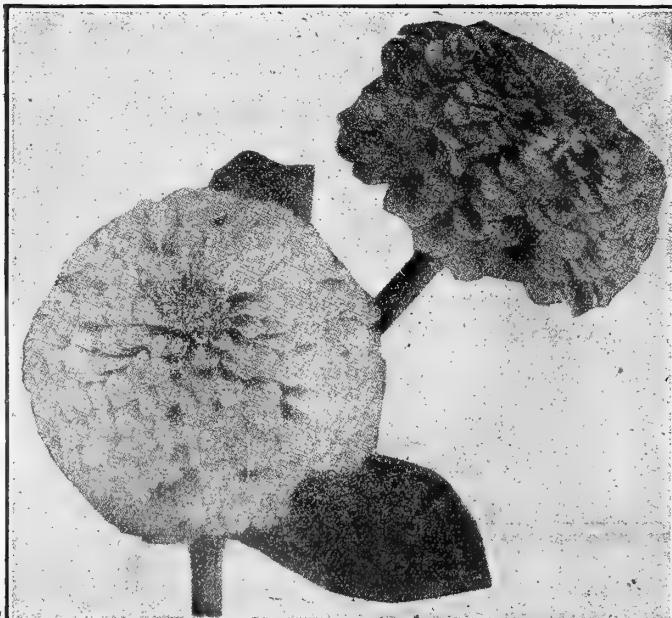
212½. RICINUS ZANZIBARIENSIS, MIXED (A)—Their immense leaves and gigantic plants exceed all other varieties. **Packet, 5c.**

213. SCABIOSA—GRANDIFLORA (P)—An old-fashioned but most attractive flower. Its great abundance and long succession of richly colored, fragrant blossoms on long stems make it one of the most useful decorative plants of the garden. Seed may be sown in place as soon as ground can be worked; or, for earlier blooming, sow in hotbeds early in spring and transplant one and one-half feet apart. Hardy annual; 12 to 18 inches high. **Packet, 10c.**

THE BEST FLOWER SEEDS



Salvia Splendens.

DIANTHUS BARBATUS.
("Sweet William.")

ZINNIAS.

215. SCARLET SAGE (Salvia Splendens) (A)—Tall, erect, green foliage. A favorite greenhouse and bedding plant, bearing long spikes of flowers in great profusion from July to October; half-hardy perennial, blooming the first year from seed. Three feet. **Packet, 5c. $\frac{1}{4}$ Oz., 45c.**

220. SENSITIVE PLANT (Mimosa)—Curious and interesting plants, with pinkish-white flowers; the leaves close in and droop when touched or shaken; tender annual. **Packet, 5c.**

230. TEN WEEKS STOCKS (Gilliflower)—A world-wide favorite, brilliant and varied in color, equally well-adapted for massing, bedding, edging or pot culture. Very profuse bloomers. Should be grown in rich soil. **Packet, 5c.**

231. STOCKS—SNOWFLAKE IMPROVED—A beautiful dwarf-growing variety; very large, double, snow-white flowers. **Packet, 10c.**

237. SWEET ROCKET (Hesperis) (A)—Very pleasing, early spring flowering, profuse blooming plants, with fragrant flowers, growing freely in any light, rich soil. **Packet, 5c.**

240. SWEET WILLIAM (Dianthus Barbatus (P))—A well-known free flowering, popular favorite; the great improvements upon the old varieties made within the last few years have rendered it still more desirable. Hardy perennials. **Packet, 5c.**

243. SWEET VIOLET (A)—Deservedly much in demand, because of their profusion of bloom and delicate, sweet odor. **Packet, 10c.**

245. MAMMOTH VERBENA (A)—One of the most popular and useful bedding plants. Verbenas delight in sunny situation, rich soil and thorough cultivation. **Packet, 5c.**

VINCA (Periwinkle)—Very attractive bushy plants, with glossy green foliage, producing in abundance handsome round or salver shaped single flowers, suitable either for culture in pots or boxes or for summer bedding and borders.

250. VINCA ROSA (A)—Rose with dark eye. **Packet, 5c.**

251. VINCA ALBA (A)—White, with crimson eye. **Packet, 5c.**

255. WALLFLOWER, DOUBLE (A)—Well-known, deliciously fragrant plants with large spikes of double flowers, similar to the Gilliflower. Succeed in light, rich soil, in a moist atmosphere. **Perennials. Packet, 10c.**

ZINNIAS

Very showy plants, with large, double imbricated flowers, which, when fully expanded, might easily be mistaken for dwarf dahlias. There is much satisfaction in a bed of Zinnias, for when nearly every other flower has been killed by frost, this plant is still in full bloom more abundantly throughout the season. Sow the seed early in spring, in open ground, and transplant to one and one-half feet apart in good, rich soil. Half-hardy annual; about eighteen inches high.

258. ZINNIA ELEGANS (Youth and Old Age (A))—This is one of the most brilliant of annuals, and has long been a general favorite. The flowers are large, finely formed, in great variety of colors, and continue to bloom the entire season. Half-hardy annuals. **Packet, 5c.**

259. ZINNIAS CURLED AND CRESTED (A)—New, odd and superb. Petals twisted, curled and crested into fantastic contortions and graceful forms. A magnificent variety of colors. **Packet, 5c.**

260. ZINNIA—DOUBLE POMPON (A)—Long, cone-shaped flowers, very fine. **Packet, 5c.**

ZINNIA—CRIMSON—Packet, 10c.

ZINNIA—WHITE—Packet, 10c.

GENERAL LIST OF CLIMBERS

270. **BALSAM APPLE** (*Momordica*) (A)—Very curious trailing vines, with ornamental foliage; fruit golden yellow; when ripe, opens, showing the seeds and its brilliant carmine interior. **Packet, 5c.**

272. **BALLOON VINE** (*Love in a Puff*) (A)—A rapid growing plant; succeeds best in light soil and warm situation; flowers white; half-hardy annual. **Packet, 5c.**

275. **CANARY BIRD FLOWER** (*Peregrinum*) (A)—With yellow, canary-like flowers; very ornamental and beautiful foliage; half-hardy. **Packet, 5c.**

276. **COBEA SCANDENS** (P)—A beautiful, rapid-growing climber, with handsome foliage and large bell-shaped flowers; blue; half-hardy perennial; grows 20 to 30 feet high. **Packet, 10c.**

278. **CYPRESS VINE, RED** (*Ipomea Quamoclit*) (A)—One of our most popular vines, with very delicate fern-like foliage, and masses of beautiful, small, star-shaped flowers. Sow last of May; 15 feet. **Packet, 5c.**

279. **CYPRESS VINE, WHITE** (A)—Usually grown with the red, making a handsome effect. **Packet, 5c.**

282. **MAURANDIA** (*Barclayana*) (A)—These charming climbers cannot be too highly praised for their beautiful flowers and foliage. They are admirably adapted for hanging baskets, vases or trellis work. **Packet, 5c.**

GOURLDS

These are desirable in many places where an immense amount of vine is wanted quickly. Most sorts are good for 20 to 30 feet in a season, and the blooms of some are quite striking and handsome. With many sorts the fruit is unique and ornamental and often useful. The small fancy gourds are excellent toys for children, while the larger gourds may be used as dippers, sugar troughs and bowls.



285. **MIXED GOURLD** (*Cucurbita*) (A)—**Packet, 5c.**

286. **NEST EGG GOURLD** (A)—White fruit, shaped like an egg. Used as a substitute for nest eggs. **Packet, 5c.**

DISHCLOTH GOURLD—Many women prefer a dishcloth made of this Gourd to anything else, as it is always sweet and clean as long as any part of it is left. **Packet, 5c.**

288. **DIPPER GOURLD** (A)—Makes an excellent dipper. **Packet, 5c.**

290. **MOCK ORANGE** (P)—Fruit shaped like an orange. **Packet, 5c.**

291. **CALABASH OR PIPE GOURLD**—Odd-shaped fruit, which is used to an advantage in making pipes. **Packet, 5c.**

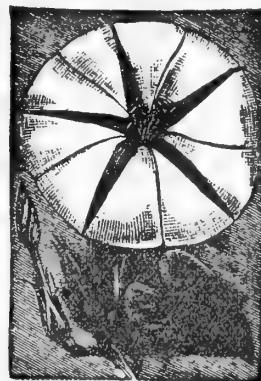
295. **HEAVENLY BLUE IPOMEA** (A)—The flowers are in large, airy clusters, and of that lovely hue so rarely seen. Flowers four to five inches across. **Packet, 5c.**

300. **MORNING GLORY** (*Convolvulus Major*)—One of the most free-flowering and rapidly-growing plants in cultivation, thriving in almost any situation. The beauty and delicacy of their brilliant flowers are unsurpassed; hardy annuals. **Packet, 5c.**



302. **GIANT JAPANESE MORNING GLORY** (See Cut)—This plant has been developed to such a state of perfection that it now produces flowers of immense size and almost endless variety of color and markings. Some of the flowers are brilliant red, or rich blue self-colored; others are equally brilliant, with broad margins of clear white. Not only are the flowers varied, but the foliage is equally so; some of it comes plain green, and part is mottled with white and shades of yellow or yellowish green. **Packet, 10c. Ounce, 20c.**

305. **MOON FLOWER** (*Ipomoea Noctiflora*)—Charming and popular blooming climbers; of rapid growth and showy effects; warm, rich soil, with a sunny exposure, suits them. **Packet, 5c.**



Moon Flower

162. **PASSION FLOWER** (*Southern Beauty*)—A most interesting and well-known order of climbers, bearing singularly beautiful flowers.

320. **SCARLET RUNNERS**—Very handsome climbing Beans, with bright scarlet flowers.

Packet, 5c.

326. **SMILAX** — Charming climber for greenhouses or window gardens.

Packet, 5c.

SWEET PEAS

CULTURE.

Sweet Peas should be sown in drills latter part of November for fall planting, or as early as possible in spring, in rich, friable soil. Prepare the bed thoroughly, working in a quantity of well-rotted manure, if it can be done, making a furrow 4 to 6 inches deep. In this sow the seed and cover 2 inches deep. As soon as the plants begin to show through, fill in the furrow. This will secure a deep planting without the bad effect of deep covering of the seed at first, and so enable the plant to bloom continuously through the heat of summer. As fast as the flowers come into full bloom or fade they should be cut off, for if the pods are allowed to form the plants will stop blooming.

377. G. & T. CO'S EXTRA FINE, MIXED—Consists of the very choicest varieties mixed in the newest colors and shades. Packet, 5c.; oz., 10c.; $\frac{1}{4}$ lb., 25c.; $\frac{1}{2}$ lb., 50c.; 1 lb., \$1.00. Postage, 6c. per lb. Extra.

378. ECKFORD'S FINE MIXED—One of the finest mixtures of the Eckford varieties.

Packet, 5c.; oz., 10c.; $\frac{1}{4}$ lb., 25c.; $\frac{1}{2}$ lb., 50c.; 1 lb., \$1.00. Postage, 6c. per lb. Extra.

379. SUPRE SPENCEE MIXTURE—This mixture is made up from our carefully prepared formula. It contains practically all the true Spencer varieties introduced to date. Great attention is given to secure a beautiful light mixture, and yet include all shades, nicely balanced and proportioned.

Per oz., 15c.; $\frac{1}{4}$ lb., 50c.; 1 lb., \$1.50.

Grandiflora Sweet Peas

Price: Per pkt., 5c.; oz., 10c.; $\frac{1}{4}$ lb., 25c.; $\frac{1}{2}$ lb., 50c.; 1 lb., \$1.00. Postage, 6c. per lb. Extra.

350. AGNES ECKFORD—Beautiful soft, light pink.

351. AMERICA—Bright red and white striped.

352. JEANNIE GORDON—Standard bright rose; wings primrose, tinted with light rose.

353. AURORA—White, with stripes and flakes of orange-pink.

354. BLACK KNIGHT—Glossy deep maroon, open form.

355. BLANCHE BURPEE—Pure white.

356. BLANCHE FERRY—Standard bright crimson-rose; wings white, tinged with pink.

357. BOLTON'S PINK—Orange or salmon-pink, veined with rose.

358. LORD NELSON—A darker strain of navy blue; very dark.

359. COCCINEA—Pure cerise; self-color.

360. COUNTESS OF BADNOR—Light mauve standard; lavender wings.

361. DAINTY—Pure white, edged with light pink and standard, and wings almost true white, with pink edges.

362. DUKE OF WESTMINSTER—Standard clear purple; wings violet.

363. EMILY HENDERSON—Pure white; a vigorous grower.

364. HENRY ECKFORD—Almost clear salmon; self-color; nearest approach to orange sweet peas.

365. HELEN PIERCE—Pure white; veined, mottled and marbled with bright blue.

366. HON. MRS. E. KENYON—Primrose; large semi-hooded form.

367. ROMOLO PIAZZANI—Rose-purple; large flowers of best type.

368. KATHERINE TRACY—Standard soft pink; wings lighter tone; almost self-color.

369. KING EDWARD VII—Bright red or crimson scarlet.

370. LOTTIE ECKFORD—White, shaded lilac and blue.

371. LOVELY—Standard, and wings deep pink, shading lighter at edges.

372. MRS. COLLIER—Rich primrose tint; large flowers and long stems.

373. DOROTHY ECKFORD—White; large bell-shaped flowers.

374. PRIMA DONNA—Fine pink; self-colored.

375. QUEEN OF SPAIN—Soft buff pink, with curled standards.

376. SALOPIAN—Bright red or crimson-scarlet.



Early and Winter Flowering Sweet Peas

This distinctive class of Sweet Peas is valued for earliness of bloom when grown out of doors, and for their winter flowering qualities when grown in greenhouses. They begin blooming according to the variety—in from 8 to 12 weeks from planting seed. Price, 15c. per oz.; $\frac{1}{4}$ lb., 50c.; 1 lb., \$1.50. Postage, 6c. per Pound Extra.

380. BURPEE'S EARLIEST WHITE—Very early; hooded form.

381. CHRISTMAS PINK—Pink and white.

382. EARLIEST OF ALL—Bright rose standard, with white wings.

383. EX. EV. BLANCHE FERRY—Pink and white.

384. FLORENCE DENZER—White.

385. MRS. ALEX. WALLACE—Pinkish lavender; very early.

386. MRS. E. WILDE—Rosy crimson.

387. MRS. F. J. DOLANSKY—Pink.

388. MONT BLANC—White; early; open form.

389. WATCHUNG—White.

390. MRS. CHAS. H. TOTTY—Lavender.

391. LADY GEISEL HAMILTON—Soft lavender, tinted with mauve in standard.

PLANT DEPARTMENT

We do not deliver plants free by express; the purchaser pays the charges, and unless instructed to the contrary, orders will be forwarded by express.

Orders for plants will be forwarded at the proper time for planting, according to variety.

Cash must accompany all orders. We do not ship plants C. O. D.

VEGETABLE PLANTS

FROM SEED BED. SPECIAL PRICE IN QUANTITY.

BEET—Eclipse, Crosby, Egyptian. 60c. per 100; \$5.00 per 1000. By express, not prepaid. Add 10c. per 100 if by mail.

BRUSSELS SPROUTS—60c. per 100; \$5.00 per 1000. By express, not prepaid. Add 10c. per 100 if by mail.

CABBAGE—All the leading varieties. From December 1 to May 1, frame grown. 70c. per 100; \$2.50 per 500; \$4.50 per 1000. Field grown from May 1 to December 1. 50c. per 100; \$2.00 per 500; \$4.00 per 1000. By express, not prepaid. Add 10c. per 100 if by mail.

CAULIFLOWER—Early Snowball. \$1.00 per 100; \$6.00 per 1000. By express, not prepaid. Add 10c. per 100 if by mail.

CELERY—All the leading varieties. 60c. per 100; \$2.50 per 500; \$5.00 per 1000. By express, not prepaid. Add 10c. if by mail.

EGG PLANT—Imp. Baltimore from seed bed. \$1.50 per 100; \$6.00 per 1000. By express, not prepaid. Add 10c. per 100; by mail.

SAGE—Holt's Mammoth, for flavoring. From 2-in. pots, 10c. each; \$1.00 per dozen. By express, not prepaid.

KOHLRABI—Early White Vienna. 60c. per 100; \$5.00 per 1000. By express, not prepaid. Add 10c. per 100 if by mail.

LETTUCE—Ready at all seasons. All the leading varieties. \$1.00 per 100; \$2.50 per 500; \$6.00 per 1000. By express, not prepaid. Add 10c. per 100 if by mail.

PARSLEY—For fall or spring planting. Large, strong roots. \$1.00 per 100; \$5.00 per 1000. By express, not prepaid. Add 10c. per 100 if by mail.

PEPPER—All leading varieties at 25c. per doz.; \$1.50 per 100; \$6.00 per 1000. By express, not prepaid. Add 10c. per 100 if by mail.

SWEET POTATO—60c. per 100; \$3.00 per 500; \$6.00 per 1000. By express, not prepaid. Add 10c. per 100 if by mail.

TOMATO—Ready April 1. Seed bed plants of Bonnie Best, Earliana, Chalk's Jewel, Dwarf Champion, Ponderosa and Main Crop Varieties at 75c. per 100; \$2.50 per 500; \$5.00 per 1000. Main crop varieties, Field Grown, ready May 25. 50c. per 100; \$2.00 per 500; \$4.00 per 1000. By express, not prepaid. Add 10c. per 100 if by mail.

GREENHOUSE PLANTS

FOR POTTING AND BEDDING. FROM 2- OR 3-IN. POTS.

ABUTILONS

(Flowering Maple.)

ECLIPSE—In great demand for baskets and vases. Leaves variegated yellow and green, having bright yellow flowers, with crimson throat.

SAVITZII—A beautiful bedding plant; variegated white and green foliage.

10c. Each. By Mail, Add 5c. Each Extra.

ACALYPHA

MACAFEANA—A handsome variegated foliage bedding plant, which may be used in connection with Coleus, Crotons or other foliage plants for sub-tropical bedding.

10c. Each. By Mail, Add 5c. Each Extra.

SWEET ALYSSUM

Dwarf Double—for pot plants. Giant Double—for cutting.

10c. Each. By Mail, Add 5c. Each Extra.

AGERATUM

DWARF WHITE.

INIMITABLE—Giant Blue.

LITTLE GEM—Dwarf Blue.

PRINCESS FAULINE—Sky Blue, white centre.

10c. Each; \$1.00 per Dozen. By Mail, Add 5c. Each Extra.

BEGONIAS

VERNON—Pink bedding.

VERNON—White bedding.

LUMINOSA—Red flower and foliage.

GLOIRE DE CHATALAINE—Dwarf; flowers rose color; hardy for pot or bedding.

GRACILIS (Pfitzeri Triumph)—Pure white; free flowering.

BEGONIA (Erfordia)—Bright, rosy-carmine.

10c. Each; \$1.00 per Dozen. By Mail, Add 5c. Each Extra.



ALTERNANTHERA

A beautiful class of dwarf plants growing only 6 inches high, admirably adapted for forming letters, ribbon lines, edgings or bed.

AUREA NANA—Yellow, compact.

BRILLIANTISSIMUS—Rich carmine.

SEYBOLDI—Broad leaf, yellow.

VERSICOLOR—Crimson, chocolate and green.

10c. Each; \$1.00 per Dozen; \$6.00 per 100.

By Express, Not Prepaid.

ASPARAGUS (*Sprengerii*)

ASPARAGUS (*Plumosa*)

Potted plants, 10c. each. By mail, add 5c. each extra.

CINERARIA

MARITIMA (Candidissima)—Silver foliage bedding plants. 10c. Each; \$1.00 per Dozen; \$6.00 per 100. By Mail, Add 5c. Each Extra. By Express, Not Prepaid.

TRADESCANTIA

(Wandering Jew)

Beautiful trailing plants, with thick, waxy, lance-shaped, striped foliage; very useful in baskets and porch boxes.

MULTICOLOR—Green and White.

10c. Each. \$1.00 Per Doz.

CANNAS

Few flowering plants combine so many fine qualities as the modern Canna—a race of subtropical bulbous plants, of most easy culture, rapid reproduction and good keeping qualities. The floral world has been astonished by their luxuriance of foliage and gracefulness of bloom, which is of immense size, borne in large masses and trusses, combining in color the brightest and richest shades of yellow, red, orange and scarlet, bringing them to the front as the finest ornamental plant in commerce.



FOLIAGE CANNAS

GRANDIFLORA ROBUSTA.

Roots of large-growing Foliage Cannas with bronze leaf. The above make beautiful foliage, but do not bloom. Dormant roots at 5c. each; 50c. per dozen. By parcel post, 10c. per dozen extra.

Dry Canna Roots, in assorted varieties, our selection, at 5c. each; 50c. per dozen. Parcel post, 10c. per dozen extra.

Select Bedding Varieties

SUBJECT TO OUTTURN OF CROP.

FROM 3-IN. POTS. READY APRIL 15th.

POTTED PLANTS ONLY.

Price, except where otherwise noted, 15c. each. \$1.75 per doz.

FIRE BIRD—Glistening bright scarlet; large flowers. 25c. each.

KING HUMBERT—The broadest-leaved Canna; bronze, with orange-scarlet flowers; 4 to 5 ft.

MRS. KATE GRAY—Rich orange-scarlet flowers, six inches across, flaked with yellow tints; 5 ft.

WM. SAUNDERS—Bright scarlet flowers; in great clusters; 4 ft. 15c. each.

ALPHONSE BOUVIER—Crimson; 5 ft.

FLORENCE VAUGHAN—Green foliage; rich golden yellow, dotted red; 5 ft.

GLADIATOR—Bright yellow, spotted crimson, green foliage; 5 ft.

GUSTAV GUMPPER—Ideal yellow bedding canna; 3½ ft.

J. D. EISELE—Bright vermillion scarlet; 3½ ft.

JEAN TISSOT—Intense brilliant vermillion, with orange shading; green foliage, growing about 6 ft. high.

LOUISIANA—Large vivid scarlet flowers, with glossy green foliage; 7 ft.

MME. CROZY—Rich orange-scarlet flowers, edged with bright golden yellow; 4 ft.

MAROS—Best white-flowering; creamy white flowers produced on stems well above foliage; 3½ to 4 ft.

PRESIDENT MYERS—Rich cherry-carmine flowers; bronze foliage; 4 ft.

QUEEN CHARLOTTE—Rich pomegranate red, bordered bright golden yellow; 3½ ft.

RICHARD WALLIS—Free-flowering yellow, with green foliage; 4½ ft.

RUBIN—Bright scarlet flowers, dark foliage; 4 ft.

SOUV. DE ANTOINE CROZY—Beautiful red, bordered with golden yellow; 3½ ft.

UNCLE SAM—Clear deep orange flowers, borne in large clusters; rich green foliage; 6 ft.

VENUS—Gay rosy pink, with mottled border of creamy white; 4 ft.

WYOMING—Orange-scarlet, with bronze foliage; 4½ ft.

IF WANTED BY MAIL, ADD 5c. EACH EXTRA.

MIXED CANNA ROOTS IN SPLENDID VARIETY

OUR SELECTION.

5c. Each; per Dozen, 50c.; per 100, \$4.00. By Express, Not Prepaid. By Parcel Post, 10c. per Dozen Extra.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

HARDY POMPON CHRYSANTHEMUMS



Small-Flowered or Button Varieties

BABY—Smallest golden yellow.
CERISE QUEEN—Clear pink.
ELEGANTA—Deep rose, shaded white.
FASHION—Maize yellow; fine for cut flowers.
GOLDEN CLIMAX—Orange yellow.
GOLDEN PHEASANT—Deep orange yellow.
INEZ—Scarlet bronze.
MARY—Pearl white, flushed pink.
MEG—Wine red, shading to garnet.
JAMES BOONE—Pure white.
RITA—Bright pink.
TENNYSON—Pure yellow, for cut flowers.

Large-Flowering or Aster Varieties

PLANTS FROM 2-IN. POTS.

AUSTIN—Lilac rose; cut petals.
BOHEMIA—Fine pure white.
BRADSHAW—Silver pink; large full flowers.
CUMBERLAND—Long stemmed, yellow.
ELDORADO—Bright golden.
ELEANOR—Dwarf white.
EXCELSIOR—Bright-orange yellow.
LELLA—Bright brick red.
LILLIAN DOTY—Finest large-flowered pink of the Pompon family.
MISS EMMA—Golden bronze.
QUEEN OF WHITES—Fine creamy white; long stems.
REBECCA—Orange yellow.
SALEM—Silver rose; long-quilled petals.
SIR MICHAEL—Lemon yellow.
ST. ELMO—Splendid white.
SYLVIA—Large flowers; scarlet bronze.
TRIUMPH D'OR—Rich golden yellow.
URITH—Bronze, tipped yellow; large flowers.
VIOLA—Rich violet rose.
WINDLESS—Rich orange yellow; large flowers.

Single-Flowered

AARON—Bronze scarlet.
GARZA—White, with quilled petals.
LITTLE GEORGE—Small flowers; violet red.
PINK DAISY—Light pink.
PROVIDENCE—Early white.
ROSY MORN—Silver pink.
WALLIS—Pure yellow.

Anemone Varieties

BARNEY—Golden bronze.
EARL—Pearl white, silver-rose centre; dwarf.
eva—Rose pink.
FURNESSIA—Silver white.
LADY OLIVIA—Beautiful white.
MATILDA—White.
MAY SUYDAN—Bronze.
MYERS PERFECTION—Fine pure white; tall grower.
OBAN—Silver pink; fine for cut flowers.
PALMYRA—Silver pink.
PRINCE DANILO—Pure white.

Price, 10c. Each; per Dozen, 75c.; per 100, \$5.00.
 By Express, Not Prepaid.

FUCHSIAS

10c. each; \$1.00 per doz., by express, not prepaid.

BLACK PRINCE—Single, wavy carmine petals, open, pale pink corolla.

ELEGANA—Sepals white, corolla clear rose.

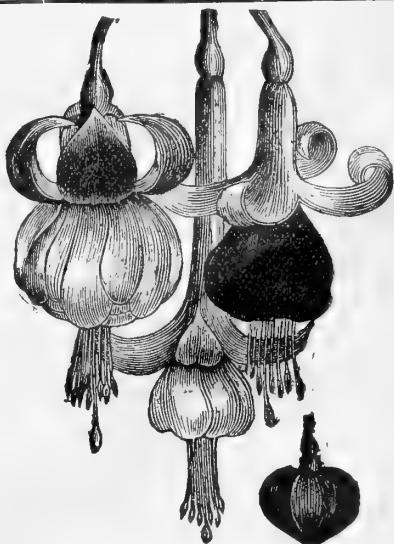
JOSEPH ROZAIN—Double purple.

MINNESOTA—Tube and petals light pink, corolla violet purple.

SPECIOSA—Single pink.

TORPILLEUR—Single white.

WHITE BEAUTY—Light pink sepals, white corolla.



DAHLIAS

NEWEST
VARIETIES

The following named varieties from 3-inch pots,
Plants only (Ready April 15th)

A. C. IDE (Decorative)—Rich velvety maroon. 35c. each.

ALPENROSE (Cactus)—Fine, having twisted petals of bright aniline red, intensified by golden yellow suffusion. 30c. each.

BELoit (Decorative)—Large, bright glowing crimson flowers, of good substance. 30c. each.

CORRY (Decorative)—An indescribable combination of deep pink and pinkish lavender. Free bloomers. 75c. each.

HORTULANUS WITTE (Decorative)—Very long stemmed, free flowering, pure white. 50c. each.

KING OF AUTUMN (Decorative)—Large perfectly formed flowers of beautiful shade of burnt amber, tinged and shaded old rose. 50c. each.

MARGUERITE BOUCHON—Magnificent shade of brilliant,

yet soft rose, with white centre and white tips. 35c. each.

NANCY MAE—Intense scarlet, with maroon shadings. 25c. each.

PRINCE OF YELLOW—Rich canary yellow. 15c. each.

RENE CAVEAUX—Rich Geranium red. 10c. each.

SEQUOIA—Deep saffron yellow, suffused with red. 20c. each.

THOS. PARKIN—Bright terra-cotta red. 20c. each.

WODAN—Delicate salmon rose color, shading to old gold in centre; large with semi-incurved petals. 35c. each.

WOLFGANG VON GOELHE—Rich apricot with carmine shadings. 35c. each.

Prices 10c. each, except where otherwise noted.

BRITTANIA—Deep salmon flesh. 15c. each.

COUNTESS OF LANSDALE—Rich salmon.

ELSE—Buttercup yellow, shading into amber.

FLORA—Large pure white. 15c. each.

FLORADORA—Dark velvety crimson. 15c. each.

GEN. J. B. SETH—Rich and gorgeous, with brilliant scarlet shadings.

GOLDEN GATE—Bright golden yellow, early and free-flowering; very large and full. 30c. each.

HONESTY—Pink with white centre; excellent garden variety. 35c. each.

KALIF—Colossal; pure scarlet and perfect form. 35c. each.

LAWINE—White, showing blush as flower matures. 15c. each.

MARGUERITE BOUCHON—Magnificent shade of brilliant,

yet soft rose, with white centre and white tips. 35c. each.

NANCY MAE—Intense scarlet, with maroon shadings. 25c. each.

PRINCE OF YELLOW—Rich canary yellow. 15c. each.

RENE CAVEAUX—Rich Geranium red. 10c. each.

SEQUOIA—Deep saffron yellow, suffused with red. 20c. each.

THOS. PARKIN—Bright terra-cotta red. 20c. each.

WODAN—Delicate salmon rose color, shading to old gold in centre; large with semi-incurved petals. 35c. each.

WOLFGANG VON GOELHE—Rich apricot with carmine shadings. 35c. each.

Prices 10c. each, except where otherwise noted.

E. CHAVELIER—White base bordered purple; very distinct. 35c. each.

LE GRAND MANITOU—White ground color, prettily spotted, striped and blotched with deep reddish violet. 15c. each.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

Fancy Varieties

E. CHAVELIER—White base bordered purple; very distinct. 35c. each.

LE GRAND MANITOU—White ground color, prettily spotted, striped and blotched with deep reddish violet. 15c. each.

DAHLIAS—Continued.

THE FOLLOWING NAMED VARIETIES SUPPLIED IN
POTTED PLANTS ONLY. (Ready April 15.)

Decorative Varieties

Prices, except where otherwise noted, 10c. each.; \$1.00 per dozen.

By express, not prepaid. By parcel post, add 3c. each for postage.

AUGUSTA NONIN—Large flower of fiery red. 35c. each.

BARROWS BEDDER—Light red, dwarf free. 35c. each.

CREATION—Beautiful crimson rose, shading lighter as the blooms become full. 50c. each.

DELICE—Beautiful glowing rose-pink.

EVENTIDE—White, with faintest flush of delicate rose, on edge of flower, which seems to intensify its pureness. 35c. each.

FIRE RAIN—Rich Cardinal red. 20c. each.

FLAMINGO—Rich and glowing rose-pink, showing sometimes an open centre. 30c. each.

GOLDEN WEST—Best yellow, fine for cutting. 25c. each.

JACK ROSE—Rich velvety crimson.

MABEL—Light mauve; pretty and free-flowering. 50c. each.

MINA BURGL—Rich luminous dark scarlet; free-flowering. 50c. each.

MISS MINNIE McCULLOUGH—Soft yellow, overlaid with bronze. 25c. each.

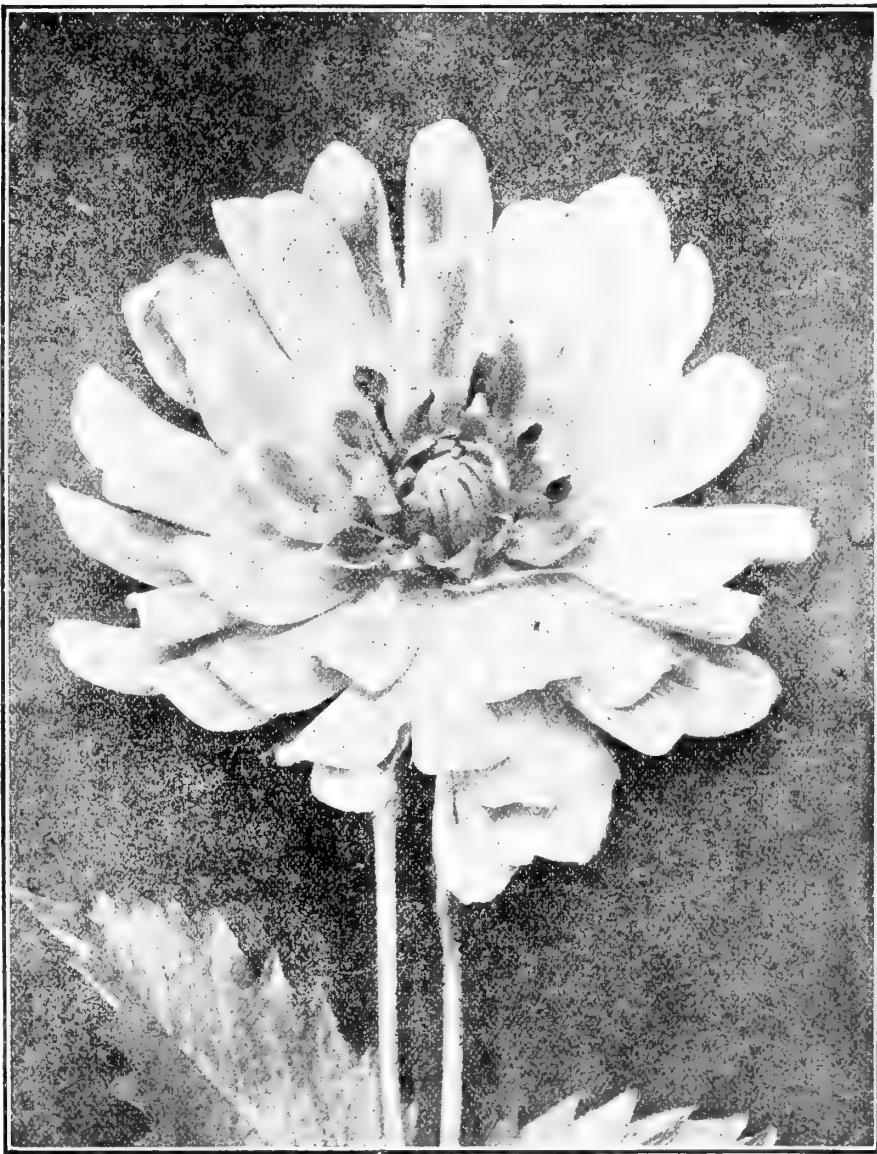
PRINCESS VICTORIA LOUISE—Deep rose-pink.

SYLVIA—Rich pink, white centre.

VIRGINIA MAULE—Delicate tint of shell pink.

YELLOW DUKE—Pure Canary yellow.

OREGON BEAUTY—Intense oriental red with golden sheen and garnet suffusion. 30c. each.



CENTURY VARIETIES

Price, 10c. each. \$1.00 per dozen. By express, not prepaid.

BIG CHIEF—Brilliant cherry-red, margined rich velvety maroon.

FRINGED TWENTIETH CENTURY—Similar to twentieth century, having petals deeply cleft.

ROSE PINK CENTURY—Clear rose pink; immense size.

SCARLET CENTURY—Bright scarlet.

SENSATION—Vivid scarlet, heavily tipped white.

SINGLE VARIETIES

Price, 10c. each. \$1.00 per dozen. By express, not prepaid.

ALBA SUPERBA—Large pure white.

AMI BARILLET—Scarlet-crimson flowers, dark bronze foliage.

ST. GEORGE—Large pure yellow.

POMPON VARIETIES

Price, 10c. each. \$1.00 per dozen. By express, not prepaid.

By parcel post, add 3c. each for postage.

ALEWINE—Flesh, edged lavender pink.

CRIMSON QUEEN—Deep crimson, shaded purple.

INDIAN CHIEF—Crimson.

LITTLE BEAUTY—Delicate shrimp pink.

LITTLE HELEN—Pure white.

LITTLE MAY—Bright lemon yellow.

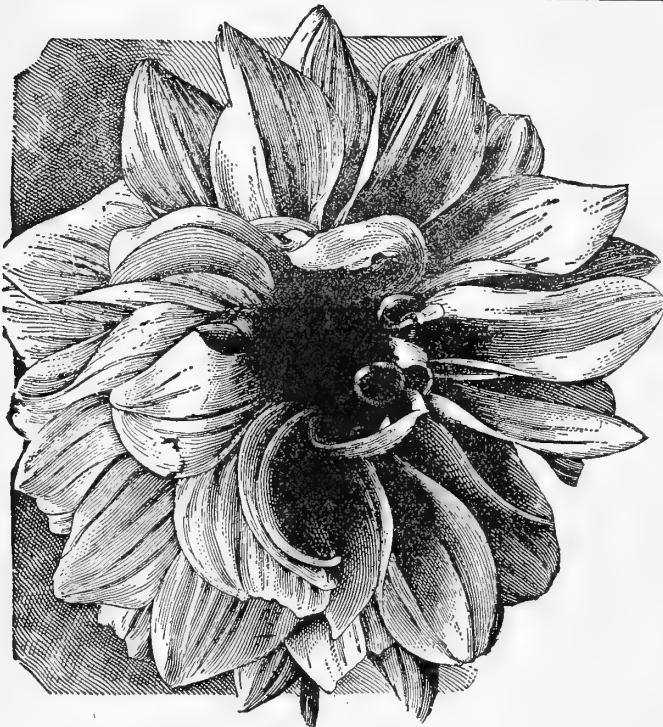
DAHLIA ROOTS

(OUR SELECTION.)

In separate colors, not named varieties. Large clumps, 12c. each; \$1.25 per dozen. By express, not prepaid.
IF BY MAIL, ADD 3 CENTS EACH FOR POSTAGE.

DAHLIAS—Continued

THE FOLLOWING NAMED VARIETIES SUPPLIED IN
POTTED PLANTS ONLY. (Ready April 15.)



PEONY-FLOWERED VARIETIES

Prices, except where otherwise noted, 10c. each; \$1.00 per dozen; by express, not prepaid. By parcel post, add 3c. each for postage.

GEISHA—Scarlet and gold, with yellow centre, deepening to scarlet at centre. 25c. each.

GERMANIA—Dazzling crimson.

GLOIRE DE BAARN—Delicate flesh pink.

HON. R. L. BORDEN—Rich golden bronze. 25c. each.

MRS. CHAS. L. SEYBOLD—Distinct bright crimson-pink, each petal tipped white.

PRairie FIRE—Rich scarlet.

QUEEN WILHELMINA—Fine pure white.

QUEEN EMMA—Distinct Rose.

LANTANAS

An old favorite for bedding or individual plant purposes, but on account of the great improvement in shades in the last few years they are becoming more and more popular.

E. BAYARD—Bright orange-red and yellow.

CRAIGI—Bright orange, fading to rich crimson.

DELICATISSIMA or **WEEPING**—Lilac-lavender; fine for baskets.

FRANCINE—Sulphur yellow and deep pink.

HELVIA—Pale canary, shading to deep yellow centre.

JAVOI—Tall; clear pure white, yellow eye.

LA PLUIE D'OR—Pure yellow; dwarf growth.

LYEE—Pure white, with yellow centre; large flowering.

Price, 10c. each; \$1.00 per dozen; by express, not prepaid.

SHOW VARIETIES

BLACK DIAMOND—Purple garnet, shading black.

CHAS. LANIER—Yellow amber, shaded buff.

CLIENT—Deep velvety crimson.

ELECTRIC—Soft magenta rose.

ETHEL MAULE—Pure white, tinged pale lavender in centre.

GLOIRE DE LYON—Fine, large, pure white.

JOHN THORPE (Show)—Deep lilac, rose pink; very large and free.

MAGNIFICENT—Pure yellow; dwarf; splendid bedder.

MARGUERITE BRUANT—Pure white dwarf and free.

QUEEN OF YELLOWS—Rich canary yellow; best for cutting.

RUBY QUEEN—Clear ruby red, richly shaded.

YELLOW LIVONII—Soft lemon yellow.

DAHLIA ROOTS

In separate colors, not named varieties. Large clumps, 10c. each; \$1.00 per dozen; by express, not prepaid.

HELIOTROPE

CHIEFTAIN—Lilac; large trusses, sweet-scented.

MME. DE BLONAY—Large trusses, nearly pure white.

MME. BRUANT—Very dark purple.

10c. each; \$1.00 per dozen, by express, not prepaid.

HARDY ENGLISH IVY

LARGE-LEAVED VARIETY.

10c. each; \$1.00 per dozen.

SENECIO SCANDENS

PARLOR IVY—For vases, baskets and boxes. 10c. each.

VINCA (Periwinkle)

Ever-blooming bedding plants, flowers phlox shaped. In separate colors, rose or white. 10c.; \$1.00 per dozen.

LEMON VERBENA

10c. each; \$1.00 per dozen; by express, not prepaid.

GERANIUMS



MARYLAND—Handsome marked foliage, with a chocolate zone. Magnificent semi-double flowers of perfect form and grand texture, profusely produced in enormous trusses. Intense dazzling, fiery-red color. 25c. each.

STANDARD DOUBLE VARIETIES

COL. THOMAS—Deep cardinal red.

FLEUVF BLANC—Pure white.

LA PILOTE—Brilliant scarlet; a favorite bedder.

M. A. ROSELEUR—Deep rose-pink.

MARQUISE DE CASTELLANE—Soft red crimson.

MISS F. PERKINS—Charming shade of deep rose.

ROSE—Rose-scented.

SCARLET UNIQUE—Dull scarlet; blotched maroon.

Price, 10c. each; \$1.00 per dozen. By express, not prepaid.

STANDARD SINGLE VARIETIES

ADMIRATION—Bright rose-shrimp pink.

CLAIRE ALBAINE—Pure white color.

EMMANUEL ARENA—Deep rich dark velvety crimson.

FEUER—Brilliant crimson red.

GLOIRE DE ROUGE—Rich scarlet.

MRS. E. RAWSON—Scarlet flowers.

ROSALDA—Rich crimson pink.

SNOWDROP—Pure white.

THE SIRDAR—Intense scarlet.

TIFFIN—Rich glowing scarlet.

VICTOR GROSSET—Bright apricot-salmon.

Price, 10c. each; \$1.00 per dozen. By express, not prepaid.

3 Cents Each for Postage.

IVY-LEAVED VARIETIES

Price, 10c. each; \$1.00 per dozen. By express, not prepaid.

ALLIANCE—Delicate white lilac.

COL. BADEN POWELL—Pearl white.

JOSEPH WARREN—Lovely shade of rich purple.

MME. THIBAUT—Clear rosy pink.

PIERRE CROZY—Bright scarlet flowers.

SCARLET CROUSE—Magnificent shade of carmine.

VARIEGATED FOLIAGE VARIETIES.

MOUNTAIN OF SNOW—Light green foliage; variegated white; single scarlet flowers.

MME. LANGUITH—Beautiful cherry-red; foliage broadly marked with silvery white.

MRS. POLLOCK—Green leaves, surrounded with margin of yellow; dark chocolate zone, orange-red flowers.

SILVER LEAF S. A. NUTT—Crimson-scarlet flowers; beautiful green foliage, edged white.

SOPHIE DUMARESQUE—Golden salmon-scarlet; healthy green foliage; margin of golden yellow.

Price, 10c. each; \$1.00 per dozen. By express, not prepaid.

SCENTED-LEAVED VARIETIES

BALM—Upper petals light lilac; lower petals dark.

CAPITATUM—Small leaf, rose-scented.

DALE PARK BEAUTY—Small, fragrant foliage.

FAIR ELLEN—Fragrant and beautiful; large oak-leaved foliage.

LADY MARY—Sweet-scented; rose-lake color.

LADY PLYMOUTH—Variegated rose geraniums; green and white foliage.

LEMON—Lemon-scented.

NUTMEG—Dwarf; bright green foliage; nutmeg scented.

ROSE—Rose-scented.

SCARLET UNIQUE—Dull scarlet; blotched maroon.

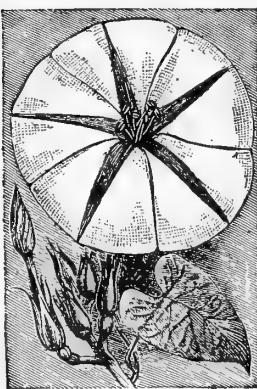
Price, 10c. each; \$1.00 per dozen. By express, not prepaid.

Moon Vines

NOCTIFLORA — The standard white Moonvine.

LEARI (Blue Dawn Flower) — Generally known as the Blue Moonflower.

10c. each; \$1.00 per doz.



MOON FLOWER.

Petunias



10c. each;
\$1.00 per
dozen.
By ex-
press,
not
prepaid.

When ordering by mail
add 4c. each for postage.

For outdoor decoration or house culture few plants equal the Petunia in effectiveness. They commence flowering early, and continue a sheet of bloom throughout the whole season until killed by frost; easily cultivated, only requiring a good soil and sunny position.

ADA—Purple, edged and striped white.

ARTUS—Deep rose pink.

GURU—Lilac rose.

IRENE—Bright rose pink.

SNOWBALL—Pure white.

Coleus

10c. each; 75c. per doz.; \$4.00 per 100. By express, not prepaid.

ROB ROY—Dwarf; pinkish red, with crinkled edges.

TRAILING QUEEN—Running Coleus; small foliage; dwarf, yellow and pink centre, bordered maroon and green.

DUNERIA—A magnificent Coleus; various shades of crimson, having very large leaves; showy bedder, and stands sun well.

GOLDEN BEDDER—A favorite yellow bedder.

HERO—Model dark Coleus; leaves almost black, pointed and scalloped.

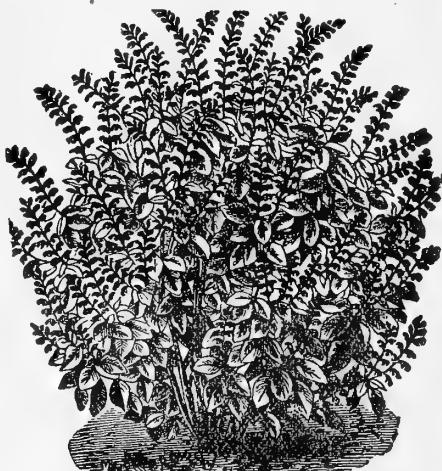
SPOTTED GEM—Green, blotched with crimson and maroon, with light yellow centre.

VERSCHAFELTII—Standard crimson variety.

Scarlet Sage

CLARA BEDMAN, OR BONFIRE—Dwarf. The fire-like appearance of the flowers standing erect among the green foliage gives the plant a most gorgeous appearance. 10c. each; \$1.00 per dozen; \$6.00 per 100.

SALVIA SPLENDENS—Tall, erect, green foliage. The well-known Salvia. 10c. each; \$1.00 per dozen; \$6.00 per 100.



Salvia Splendens.

Yucca

A hardy evergreen plant, with long, narrow leaves that are bright green the whole year. The flowers are creamy white, bell-shaped, produced on long spikes 3 to 4 feet high. Fine, stately lawn plant.

FILAMENTOSA GLORIOSA (Adam's Needle).

Price, one-year old, 10c. each, postpaid. Extra large plants, 25c. each, by express, not prepaid.

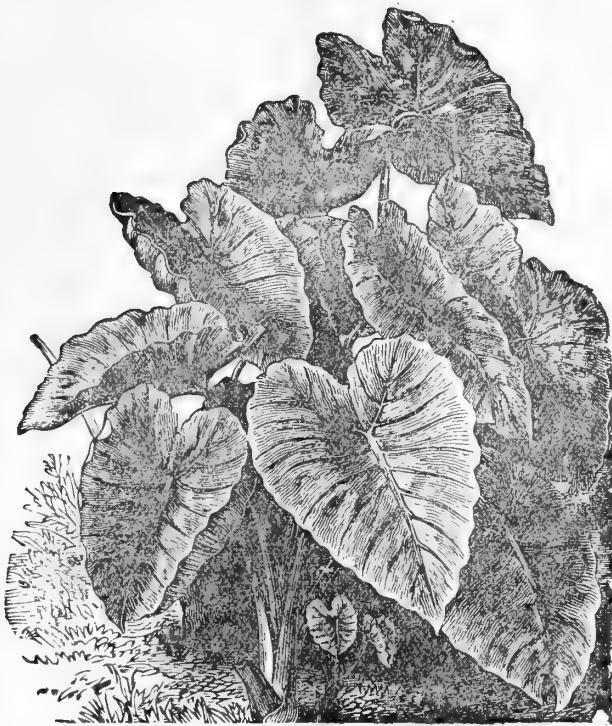
Hardy Phlox Clumps

IN MIXED VARIETIES (NOT NAMED),
at 10c. each; \$1.00 per dozen. By express, not prepaid.

Peonies



One of the most popular hardy plants grown for lawn and garden decoration. Double crimson, double white, double rose. Price, 20c. each; 4 for 75c.; \$2.00 per dozen. Postage extra, 5c. each, if wanted by mail.



Bulbs for Spring Planting



CALADIUMS

ELEPHANT EAR.

The Caladium Esculentum is one of the handsomest of the ornamental-leaved plants. It will grow in any good garden soil. Plant where it will obtain plenty of water and an abundance of rich compost. Roots planted in the spring will make good growth in the summer, and in the fall store in a cellar. There is nothing so good as this Caladium for a grand bed of foliage in the garden.

FIRST SIZE BULBS (7 and 9 inches).—Each, 8c.; dozen, 85c.

LARGE BULBS (9 and 11 inches).—Each, 10c.; dozen, \$1.00.

EXTRA LARGE BULBS (11 inches and upwards).—Each, 15c.; dozen, \$1.75.

If by mail, add single bulbs, 5c. Dozen, 15c.

TUBEROSES

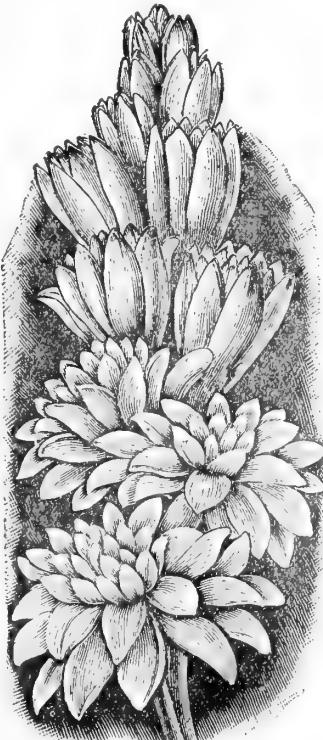
One of the most fragrant and popular of the summer flowering bulbs. May be started early in hotbeds or pots, or planted in open ground after the first day of May.

EXCELSIOR PEARL.—Double white; dwarf. Each, 5c.; dozen, 50c. Per 100, \$4.00.

If by mail, add dozen, 10c.

MADEIRA VINE ROOTS

Madeira Vine is a popular and favorite tuberous rooted climber of rapid growth, with dense and beautiful foliage. It grows everywhere, but does better in warm sunny locations. By mail, each 5c.; dozen, 50c.



GLADIOLUS

Gladiolus are the most attractive and useful for cut flowers of all summer-flowering bulbs. Use any good soil, hoe and loosen it to keep down the weeds, and with ordinary rainfalls they will flower by July 1. Plant at 10-day intervals for succession of blooms from July to October. In cutting Gladioli for the house, it is best to cut the spikes as soon as the first one or two lower flowers are open. The remainder will open in the house.

AMERICA.—This is one of the finest Gladioli ever introduced, and ranks as the best sort for cutting, as well as all-around purposes. The color is a very beautiful soft pink, the coloring and texture resembling those of the Orchid. Each, 6c.; dozen, 60c.; 100, \$5.00.

AUGUSTA.—A lovely and useful variety. pure white with blue anthers. 6c. each; 60c. per dozen; \$5.00 per 100.

EXTRA WHITE AND LIGHT VARIETIES.—All first-class varieties, made up largely from best-named sorts. 5c. each; 50c. per dozen; \$4.00 per 100.

CHILD'S MIXED.—Extra large and fine. 50c. per dozen; \$4.00 per 100.

LEMOINE'S (Mixed).—Extra fine. 40c. per dozen; \$3.00 per 100.

WHITE AND LIGHT COLORS.—Dozen, 40c.; \$3.00 per 100.

MIXED (All Colors).—Dozen, 40c.; \$3.00 per 100. If wanted by mail, add 10c. per dozen for postage.

NURSERY DEPARTMENT

Before planting fruit trees, the soil (excepting new ground) should be made mellow by repeated plowing. When trees are received the root should be covered with a blanket, sack or straw until they reach their destination; the bundle should then be opened, and the trees separated from the moss in which they are packed; if the roots have become dry, from too long exposure, straw should be spread on the ground, the trees laid upon it, then covered entirely, roots and tops, with straw, and the whole well watered. In this condition they should remain for forty-eight hours, when they will be found as fresh as when first found in the nursery. Where only a few trees are to be planted, and the soil has not been sub-soiled, or where trees are to be planted in sod, then the holes ought to be at least four feet wide and eighteen to twenty inches deep, the sub-soil thrown back, and the holes filled up to a proper depth to receive the tree with fine top soil.

APPLES

Price, 60c. Each. \$7.00 Per Dozen.

Should be planted thirty-five to forty feet apart, according to the nature of the soil and climate.

SUMMER APPLES.

AMERICAN SUMMER—Medium size, oblong, streaked and dotted red. Juicy and subacid. Last of July to August.

BENONI—Round, deep red with yellow flesh. Subacid. July.

EARLY HARVEST—Large, round and yellow; rich subacid flavor. June and July.

RED ASTRAKHAN—Large, deep crimson fruit; rich and acid. July.

TETOFSKY—Russian variety and very hardy. Yellow, striped red; flesh white and acid. July.

YELLOW TRANSPARENT—Early and prolific; clear white skin, changing to yellow. July.

AUTUMN APPLES.

FALL PIPPIN—Very large, yellowish green, ripening to rich yellow. Excellent for cooking and market. September to December.

GRAVENSTEIN—Large, round, striped with red; tender, juicy and productive. August.

MAIDEN'S BLUSH—Large and smooth, shaded red or blush on clear yellow; subacid; rapid growing and large cropper. August to October.

OLDENBURG—Very hardy and abundant bearer; golden yellow, streaked crimson; valuable for market. August.

RAMBO—One of the best; smooth skin, streaked dull yellowish; red, rich, spicy subacid flavor. October to January.

SMOKEHOUSE—Large fruited, striped red on yellow ground; subacid; productive and good for culinary purposes. September to December.

WINTER APPLES.

AMERICAN GOLDEN RUSSET (Sheepnose)—Dull yellow, with very thin russet; spicy flavor; productive. October to January.

BELLFLOWER—Pale yellow, sometimes, with blush; juicy and acid; succeeds best in mountain country. October to January.

BALDWIN—Yellow, striped red and orange; juicy and subacid; good bearer. October to January.

BENTLEY'S SWEET—Pale yellowish green, shaded red and brown spotted; sweet flavor, good bearer and keeper. January to May.

BEN DAVIS—Abundant bearer of large striped fruit; juicy and subacid. Late keeper.

GRIMES GOLDEN—Yellow subacid; spicy and rich fruit. January to March.

JONATHAN—Small, with yellow skin, almost covered red; fine flavor; popular everywhere. November to April.

LANKFORD'S SEEDLING—Hardy and annual bearer, having large striped fruit of good keeping qualities.

MAMMOTH BLACK TWIG—Seedling of Winesap, but superior; large deep red; subacid; early and abundant bearer. December to April.

NORTHERN SPY—Large, striped and somewhat covered with dark crimson; slightly subacid; best in mountain regions. November to February.

PARADISE WINTER SWEET—Large, with smooth skin; dull green, when picked, with brownish blush; juicy and sweet. November to February.

SEEK-NO-FURTHER—Medium to large, slightly russeted, with dull red stripes; rich and spicy. November to February.

STAYMAN'S WINESAP—Superior to old Winesap; large, bright red, very productive, adapting itself to different soils. Good marketing variety.

YORK IMPERIAL or JOHNSON'S FINE WINTER—Medium size, skin greenish yellow, nearly covered with bright red; tender flesh, crisp and juicy; good bearer and keeper. February to April.

CRAB APPLES

Plant eight to ten feet apart.

Price, 60c. Each. \$7.00 Per Dozen.

(By express, not prepaid.)

GENERAL GRANT—Large, dark red.

HEWES VIRGINIA CRAB—Famous cider apple; yellowish and juicy.

RED SIBERIAN CRAB—Small, with scarlet cheek on waxy yellow ground; good for preserving.

YELLOW SIBERIAN CRAB—Resembles Red, except color is rich yellow; ornamental tree as well as good for preserving fruit.

PEARS

✓ Should be planted twenty to twenty-five feet apart.

BARTLETT (Summer)—Yellow, with soft blush, fine-grained, sweet and juicy; good bearer. July and August.

Price, 70c. Each.

KOONCE (Summer)—Handsome fruit, good bearer, frost-proof and free from blight. Price, 70c. Each.

KIEFER—Standard winter variety. Large and juicy.

Price, 60c. Each.

ANGOULEME (Autumn)—Very large, dull greenish yellow, streaked and spotted russet; flesh white, juicy and excellent flavor. September to November. Price, 70c. Each.

SECKEL (Autumn)—Rich quality hardy and productive. September and October. Price, 70c. Each.

FLEMISH BEAUTY (Autumn)—Large, skin pale yellow, mostly covered with patches of russet, changing to reddish brown; hardly and abundant; gather early and ripen in house. September. Price, 70c. Each.

LAWRENCE (Winter)—Large yellow covered with brown dots; rich flavor; best early winter pear; hardy and productive. November to December. Price, 70c. Each.

LINCOLN CORELESS (Winter)—No seed or core; late in season and good keeper; golden yellow mellow fruit, of rich flavor. Price, 70c. Each.

WINTER NELIS (Winter)—Medium size; dull russet; fine-grained, buttery and melting; rich aromatic flavor. November to December. Price, 70c. Each.

PEACHES

✓ Should be planted sixteen to eighteen feet apart.

ALEXANDER—Early; flesh white and crimson skin; valuable for Southern market. July.

ARGYLE ELBERTA—Later than common Elberta; fruit finer color and better flavor; abundant producer.

BRANDYWINE—Yellow flesh; freestone. Last of August.

BUTLER'S LATE—Largest size; greenish white skin, with red cheek; very productive. First to middle of October.

BEER'S SMOCK—Larger than Smock and later; flesh firm and red next to seed; freestone. October 1st.

CARMAN—Large and round, with pale yellow skin, red blush on sunny side; white flesh, superior flavor. Middle of July.

CHAIR'S CHOICE—Large size; yellow, with red cheek; yellow flesh. Early September.

CHINESE CLING—Large fruit, with transparent cream-color skin, with marbling of red next to sun; creamy white flesh, juicy and rich flavor. Last of July.

CRAWFORD'S EARLY—Large, yellow and productive; flesh juicy and subacid; valuable for market; freestone. First of August.

CRAWFORD'S LATE—One of the best yellow Peaches for market; freestone. Middle of August.

HEATH CLING—Best of clingstone peaches, having luscious flavor, and keeping well after taken from tree; skin pale yellowish white, with tinge of red; flesh greenish white; juicy.

HEATH FREESTONE—Fruit large; skin white; juicy, with good flavor. Early September.

LEMON CLING—Lemon-shaped, light yellow color, ripening red in sun; firm yellow flesh, with subacid flavor; fine for preserving. Last of August.

LEMON FREE—Almost lemon-shaped and pale yellow when ripe; very hardy and exceedingly productive. September.

MOUNTAIN ROSE—A variety of great value for market; skin whitish, nearly covered with light and dark red; flesh white, slightly stained at stone; juicy and sweet; freestone.

OLDMIXON FREESTONE—Large, productive variety; yellowish white skin, with red cheek; white flesh, red at stone. Middle of August.

OLDMIXON CLINGSTONE—Yellowish white, dotted red; flesh pale white; melting and juicy. Middle of August.

SUSQUEHANNA—A great favorite; fruit of large size, having rich yellow skin, with red cheek; yellow flesh with rich flavor; freestone. August.

Price, 60c. Each. \$7.00 Per Dozen.

NURSERY DEPARTMENT—Continued

CHERRIES.

Should be planted sixteen to twenty feet apart.
HEART AND BIGARREAU—Succeeding best in soil not too wet or damp.

BLACK TARTARIAN—Fruit large, sweet and productive. June.

BLACK HEART—Above medium size; tender, juicy and rich. June.

ELTON—One of the finest fruits; of pale yellow, blotched red, juicy and rich. May and June.

GOV. WOOD—Large, light yellow shaded red; juicy and sweet. June.

MERCER—The finest heart cherry; dark red and juicy; good bearer.

DUKE AND MORELLO—These varieties will bear more moisture than above, though not as vigorous and upright, forming low-spreading heads, with acid or subacid fruit.

DYEHOUSE—Fruit early and subacid; bright red, darkening with sun; juicy.

ENGLISH MORELLO—Dark red, juicy and subacid. July.

EARLY RICHMOND—Red and juicy; acid flavor. Last of May. Productive.

MONTMORENCY—Large-fruited; of finest flavor, hardy and prolific.

Price, 30c. Each.

By Express, not Prepaid.

PLUMS.

Should be planted fourteen to sixteen feet apart.
GERMAN PRUNE—Esteemed for drying and preserving; oval purple fruit, with firm green flesh; sweet, and separates from stone.

GREEN GAGE—Small yellowish-green; flesh pale green; juicy, sweet and rich; one of the best flavors, and separates from stone.

LOMBARD—Medium; skin delicate violet, dotted red; flesh deep yellow; juicy, hardy and productive.

SHROPSHIRE DAMSON—Large size, dark purple; esteemed for preserving. September.

ABUNDANCE (Japanese)—Lemon-yellow ground, over-spread with cherry; flesh yellow and juicy; subacid, with apricot flavor. August.

BURBANK (Japanese)—Large cherry-red, with slight lilac bloom; deep yellow flesh; very sweet. September 1st.

WILLARD—Earliest of all Japanese plums, and valuable for market; bright claret-red, with dots; white flesh; free-stone; early, and good keeper.

Price, 20c. Each.

By Express, not Prepaid.

APRICOTS.

Apricots and nectarines should be planted twelve to fifteen feet apart. They will grow on any friable soil under good culture.

EARLY GOLDEN—Small, pale orange; flesh orange, juicy and sweet. Last of June.

HARRIS—Golden yellow; hardy and late bloomer; good bearer.

LARGE EARLY—Orange, with red cheek; sweet and juicy. Last of June.

Price, 75c. Each.

By Express, not Prepaid.

NECTARINES.

BCSTON—Large yellow, with red cheek.

ELRUGE—Greenish yellow, with red cheek.

PITMASON ORANGE—Rich orange-yellow, with brownish red cheek; yellow flesh, red at stone.

Price, 80c. Each.

By Express, not Prepaid.

QUINCES.

Should be planted ten to twelve feet apart.

CHAMPION—Greenish yellow; large fruit.

MEECH'S PROLIFIC—Pale bright orange; large fruit; fragrant and good flavor.

ORANGE (Apple Quince)—Pale orange, ripening after mid-autumn; good keeper.

Price, 75c. Each.

By Express, not Prepaid.

GRAPEs.

If planted for fastening to a trellis or arbor, should be twelve feet apart; if tied to stake, six feet apart.

Black. White. Red.

Concord, **Moore's Early**, **Niagara**. **Brighton**, **Catawba**.

Worden, **Campbell's Early**.

Price, 40c. Each.

By Express, not Prepaid.

RASPBERRIES.

Should be planted four feet apart each way.

CUTHBERT—Strong and vigorous. Large fruit; very productive. Red.

RASPBERRIES—(Continued).

Gregg—Large firm fruit, sweet and rich. Strong grower and ripens late. Black and juicy.

KANSAS (Black Cap)—Firm and of fine quality. Its canes are of strong growth, entirely hardy and prolific, with tough, healthy, clean foliage. Season about second early—later than Sothegan, but earlier than Gregg.

MILLER RED—Fruit size of Cuthbert; bright red; does not fade; core very small; ripens very early; heavy bearer; best shipper.

\$1.50 Per Dozen.

By Express, not Prepaid.

BLACKBERRIES.

Require the same kind of soil and treatment as raspberries, except that they should be planted in rows eight feet wide and four feet apart in the row.

ELDORADO—Berries very large; jet black; sweet, melting; no hard core; splendid keeper and shipper.

\$1.00 Per Dozen.

By Express, not Prepaid.

WILSON, JR.—One of the best earlies.

EARLY HARVEST—Good quality and productive. Very early.

ERIE—Black. Ripens early and very hardy.

LUCRETIA (Dewberry)—As early as Early Harvest; entirely hardy, healthy, strong grower and very productive.

\$1.50 Per Dozen.

By Express, not Prepaid.

GOOSEBERRIES.

Should be planted the same distance apart as currants. **DOWNING**—Seedling of Houghton. Large and juicy. Valuable for market.

HOUGHTON'S SEEDLING—Small fruit, but juicy and sweet. Valuable for market.

25c. Each.

INDUSTRY—Very large, excellent quality and an enormous bearer.

RED JACKET—Plant vigorous and healthy. Fruit rich dark red; oblong. Believed to be valuable.

35c. Each.

By Express, not Prepaid.

CURRENTS.

Currants should be planted on good soil, which must be kept rich and well worked in the garden, four feet apart.

CHERRY—Large red, fine variety and strong grower.

FAY'S PROLIFIC—Strong grower, wonderfully productive, and comes to bearing young; fruit large, bright red and good quality. 20c. Each.

VEGETABLE ROOTS.

ASPARAGUS ROOTS.

A saving of one to two years is effected by planting roots. A bed 12x40 feet, requiring about 100 roots, should give a sufficient supply for an ordinary family; 7,260 roots will plant an acre. Select good, loamy soil, plow deep, put in good quantity of manure and 100 pounds of kainit to 1,000 square feet of bed. Incorporate thororoughly, make a trench 8 inches deep, set plants 9 inches apart. In field culture rows are placed 4 feet apart.

Barr's Mammoth—Per 100, \$1.50. Per 1,000, \$9.00.

Falmetto—Per 100, \$1.50. Per 1,000, \$9.00.

Colossal—Per 100, \$1.50. Per 1,000, \$9.00.

Mammoth White—Per 100, \$1.50. Per 1,000, \$9.00.

JERUSALEM ARTICHOKE ROOTS.

Used for table and stock feeding. The tubers roasted or boiled, and served with butter, well seasoned, make a dish some think greater than potatoes. However, their greatest value is for hogs. Plant and cultivate like potatoes.

Peck, \$1.00. **Bushel**, \$3.50.

HORSE RADISH ROOTS.

The land should be rich, well manured, plowed deeply, harrowed and free from lumps. Plant in a roomy space by itself. Make rows 15 inches apart, set plants 12 inches from each other. Plant shoots about five inches long, making holes for same with a stick, and set them about two inches under the soil. Have the shoots cut squarely across the bottom, but cut slanting at the top, in order that one side may be a little longer than the other. Keep free from weeds for the first and second seasons, after which the Horse Radish will take care of itself. Doz., 20c. By Mail, 25c. Per 100, 75c. By Mail, 90c. Per 1,000, \$7.00. By Express, not Prepaid.

RHUBARB, OR PIE-PLANT.

This very desirable vegetable comes early in the spring. The large stems of the leaves are used for pie-making and stewing. A deep, rich soil is indispensable to secure large, heavy stalks. Plant in rows 4 feet apart, with the plants 3 feet distant. Set so that the crowns are about an inch below the surface. Top-dress annually in the fall with stable manure, and fork under in the spring.

15c. Each. By Mail, 20c. Doz., \$1.50. By Express, not Prepaid.

NURSERY DEPARTMENT--Continued

CLIMBERS

AKEBIA QUINATA—A climbing plant from Japan, with fine foliage, and clusters of purplish fragrant flowers.

AMPELOPSIS QUINQUEFOLIA (Virginia Creeper)—A native vine of vigorous growth, with abundant foliage, turning rich crimson in autumn. **Each, 60c.**

AMPELOPSIS VEITCHII—Japan introduction; rapid grower on walls, etc.; leaves small, turning to red in autumn. **Each, 60c.**

CLEMATIS—FLAMMULA (European Sweet-Scented)—Rapid grower, hardy, bearing white fragrant blooms.

CLEMATIS—JACKMANI—As yet the best, bearing large, velvety, dark violet-purple blooms; strong and hardy.

CLEMATIS—PANICULATA—A hardy Japan variety, having pure white blooms, star-shaped and very fragrant; late bloomer. **Each, 60c.**

CLEMATIS—SCARLET—Flowers brilliant scarlet, blooming in July.

HONEYSUCKLE—Useful for covering arbors, etc., in different varieties of color. **Each, 50c.**

IVY—Hardy evergreen vine, succeeding best in cool, shady places; useful for covering walls, trees, etc. **Each, 50c.**

JESSAMINE—Naked Flowering—Golden yellow flowers, which appear in spring before foliage.

JESSAMINE—Common White—Climber with fragrant white flowers.

JESSAMINE—Grandiflora—Blooms orange-red.

TRUMPET FLOWER—A rapid-growing plant, with large trumpet-shaped scarlet flowers.

WISTARIA (Chinese)—Rapid grower, having long racemes of pale blue flowers.

WISTARIA (Double Purple)—Flowers very double and deeper in color than above. **Each, 80c.**

WISTARIA—White Flowering and Single—**Each, 80c.**

SHRUBBERY

ALTHEA (Rose of Sharon)—Hardy flowering shrubs, in the following varieties of color: Purple, Light Red, White Tipped Pink, White, Lilac. **Each, 60c.**

BLEEDING HEART—Hardy plant, with heart-shaped pink flowers.

CALYCANTHUS FLORIDUS (Sweet-Scented Shrub)—Well-known native bush, young wood of which has a strong aromatic odor. Luxuriant foliage, with rare chocolate-colored blossoms, delightfully fragrant. Blossoms in May and at intervals during summer. **Each, 60c.**

DEUTZIA, GRACILIS—Small, pure white flowers, on slender branches; hardy. **Each, 60c.**

DEUTZIA, CRENATA (Double Flower)—Flowers white margined pink. **Each, 60c.**

FORSYTHIA (Golden Bell)—Golden yellow flowers in great profusion. **Each, 60c.**

FORSYTHIA (Weeping)—Slender and drooping; yellow flowers.

HYDRANGEA (Paniculata Grandiflora)—One of the finest shrubs, growing 8 to 10 feet high, producing immense pyramidal panicles of white flowers. **Each, 75c.**

HYDRANGEA (Otaksa)—From Japan; immense trusses of rose-colored flowers in June.

JAPAN QUINCE—Produces bright scarlet flowers in early spring; hardy.

JAPAN QUINCE (White Flowering)—Producing delicate white and pink flowers in early spring.

LILAC—Pure white. **Each, 50c.**

LILAC—Bluish-purple. **Each, 50c.**

LILAC—Louis Van Houtte; large red flowers. **Each, 50c.**

SPIREAS—Anthony Waterer; crimson, of dwarf growth also; excellent for pots. **Each, 50c.**

SPIREA—Bright rose-colored, blooming all summer. **Each, 50c.**

SPIREA—Blue; late bloomers. **Each, 50c.**

SPIREA—White. **Each, 50c.**

SHRUBBERY—(Continued)

SPIREA—Plum-leaved, Bridal Wreath; pure white flowers. **Each, 50c.**

BARBERRY—(*Thumbergia*)—Small white-flowering; desirable for pot culture. **Each, 50c.**

SNOWBALL (Cranberry Bush)—An old, well-known shrub, bearing large balls of pure white flowers; very decorative fruit, beginning to color in midsummer, and hangs on during winter. **Each, 60c.**

SNOWBALL (Single)—White flowers and purple foliage in autumn. **Each, 60c.**

SNOWBALL (Japanese)—Flowers in large globular heads, pure white. **Each, 60c.**

SYRINGA (Mock Orange)—Hardy, with handsome foliage and white flowers, which somewhat resemble orange blossoms, being rather fragrant. **June flowering. Each, 60c.**

HEDGE PLANTS

To secure a good hedge it is necessary to plant well. Dig a wide, deep trench, and work the soil thoroughly into the roots. Settle the ground firmly, so that each plant will be set as solidly as a post; then mulch heavily with some coarse material for a distance of one or two feet on either side, according to the size of the plants.

ARBOR-VITAE, American—One of the most desirable evergreen hedge-plants. Of a very attractive appearance. Although a fast grower, it can be kept trimmed to any height desired. Best adapted for screens or windbreaks. **Each, 80c.**

PRIVET, California—Nothing in the way of a hedge-plant has attained in so short a time the popularity of the California Privet. While in this latitude it is deciduous, yet it retains its foliage until very late in the fall or early winter. The flower is creamy white and very fragrant. It is certainly a most desirable thornless, hardy hedge-plant, with beautiful dark green foliage. It can be kept at any desired height by frequent trimming, and grows well at the seashore.

California Privet, 2 ft. \$4.00 per 100; \$35.00 per 1,000

California Privet, 18 to 23 in. 3.50 per 100; 30.00 per 1,000

California Privet, 12 to 17 in. 2.00 per 100; 20.00 per 1,000

NUT-BEARING TREES

	Each
Japan Chestnut.....\$	Black Walnut.....\$1.50
Spanish Chestnut.....	Paper Shell Pecans.....
American Chestnut.....	Horse Chestnut, 5-7 ft.. 1.50
English Walnut..... 1.25	Japan Walnut..... 1.00

ORNAMENTAL SHADE TREES

	Each
Carolina Poplars, 9 to 10 ft.....	\$.75
Lombardy Poplars, 9 to 10 ft.....	.75
Silver Maples, 9 to 10 ft.....	1.00
Norway Maples, 8 to 10 ft.....	1.50
Pin Oaks, Red Oaks, Willow Oaks, 6 to 7 ft.....	1.50
Weeping American Willow, 6 to 8 ft.....	.75
Golden Willow, 9 to 10 ft.....	
American Elms, 9 to 10 ft.....	1.25
American Elms, 10 to 12 ft.....	2.25
American Elms, 12 to 14 ft.....	2.75

STRAWBERRY PLANTS

The ground should be prepared the same as for other crops; if not already rich, make it so by manuring. Mark out the rows the desired width, and set plants ten to seventeen inches distant in the rows; if set twelve inches in rows four feet apart, an acre will require 10,890 plants; same as if set sixteen inches in rows three feet apart.

In early winter when the ground is frozen, cover the whole with long straw, which should be removed from the plant in the spring, but allowed to remain on the ground as a mulch, to keep the berries clean next summer. When strawberries are moved in the fall, they should be left until October or the first of November.

The blossoms of all varieties marked "S" are bi-sexual or perfect, those marked "P" are destitute of stamens and are termed pistillate or imperfect.

Imperfect varieties should have a row of perfect flowered sorts planted every third or fourth row to pollenate their blossoms. When imperfect blossoms are properly fertilized they are the most prolific.

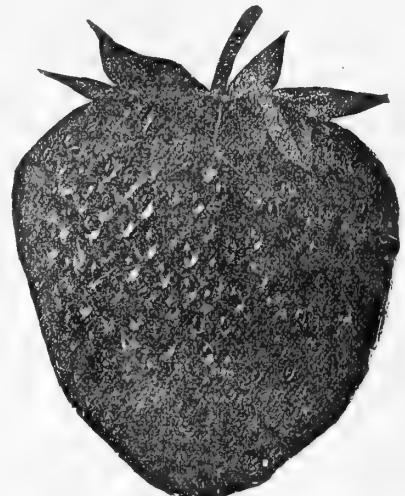
BUBACH—Large and strong grower. Early. \$2.00 per 100; \$12.00 per 1,000.

CHESAPEAKE—Well recommended for all soils; good bearer (late). \$2.50 per 100; \$15.00 per 1,000.

GANDY (S)—Strong plants, bright red in color and good late shipper. Succeeds best in heavy clay soil or bottom land. \$1.50 per 100; \$9.00 per 1,000.

TENNESSEE PROLIFIC (S)—Large size, bright crimson fruit. Good shipper and canner. \$1.50 per 100; \$10.00 per 1,000.

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GLEN MARY (S)—Dark red fruit, rich and juicy.

Good firm shipper. \$2.00 per 100; \$12.00 per 1,000.

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KLONDYKE (S)—Good cropper and firm berry, making a fine shipper. \$1.35 per 100; \$7.50 per 1,000.

SHARPLES (S)—Large fruit, of bright scarlet color. Flesh firm, juicy and sweet. Medium to late. \$2.00 per; \$12.00 per 1,000.

WM. BELT—Good for home use, being a good bearer, with large berries. \$1.50 per 100; \$10.00 per 1,000.

1,000 lots by Express only, not prepaid.

FROST-PROOF CABBAGE PLANTS

WILL MATURE HEADS TWO TO THREE WEEKS EARLIER THAN YOUR HOME-GROWN PLANTS.

Varieties: Early Jersey Wakefield, Charleston

Wakefield, Succession and Early Flat Dutch.

These plants are grown in the open field during the fall and winter months, which causes them to make a slow, tough, hardy growth—so hardy that the outer leaves turn to a reddish brown. They can be shipped to distant points without danger of spoiling, and should be planted in the open ground from four to five weeks earlier than frame plants.

They will stand a temperature of 10 to 15 degrees above zero without injury. Will do very much better planted early, as they will take root and start to grow as soon as warm weather sets in.

Orders filled from January 1 until April 1. We do not advise planting later than this time.

The plants when received will be somewhat wilted and have a hard stunted appearance, which will be disappointing to persons who have never used these plants before. Regardless of appearance, they will produce the crop results.

Prices by parcel post, postage paid, 60 cts. per 100 plants to all places in the postal union, on lots for 100 to 400.

On larger quantities the prices are as follows:

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GROUP 2—Maryland, Virginia, West Virginia, Pennsylvania, Delaware, New Jersey, Ohio, Kentucky, Ten-

ssee, Alabama, Arkansas, Florida, Missouri; 500 plants for \$1.65; 1,000 or more at \$3.00 per 1,000, postpaid.

GROUP 3—Connecticut, Kansas, Illinois, Indiana, Iowa, Massachusetts, Michigan, New Hampshire, New York, Oklahoma, Rhode Island, Texas, Vermont and Wisconsin; 500 plants for \$1.95; 1,000 plants or more at \$3.50 per 1,000, postpaid.

GROUP 4—Arizona, Colorado, Minnesota, Nebraska, New Mexico, North Dakota, South Dakota, Utah and Wyoming; 500 plants for \$2.00; 1,000 or more at \$3.75 per 1,000, postpaid.

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Plants are packed for parcel post shipment either 100, 200, 300, 400, 500 or 1,000 plants to package. For express shipment 1,000 or 2,000 plants to package. Order in these quantities. They weigh 20 to 40 pounds per thousand plants packed for shipment.

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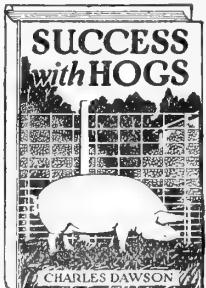
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This is a reliable guide to poultry-raising that thoroughly covers the subject by an expert. It is clear, practical and up-to-date. The fifty-five chapters give full directions for the hatching and brooding of chickens, incubation, feeding and housing, increasing the egg supply, cure of diseases, the marketing of eggs and fowls and everything pertaining to the care of hens. Nothing is given but the best methods and only those which have been proved by the experience of successful poultry keepers. The small and large poultryman, the beginner and the experienced, will find this book indispensable. It will reduce losses and increase profits. Some of the chapters: Method to Be Used; Starting in Spring; Starting in Fall; Early Hatching; Early Fertility; Late Hatching; Convenient Equipment; Artificial Incubation; Development of Chicks; Feeding the Growing Stock; Building Up a Laying Strain; Winter Egg Production; Why Hens Don't Lay; Marketing and Grading Eggs; Fattening—Killing—Marketing; Causes of Disease. Cloth. 234 pages. \$1.25.

SUCCESS WITH HOGS. By Charles Dawson. In this important book everything connected with the raising of hogs is thoroughly treated in a clear, practical and reliable manner by an authority of long and wide experience. It gives the latest and best methods for the feeding, breeding and care of swine. Every hog raiser needs this book to help him take advantage of the present great demand for pork products.

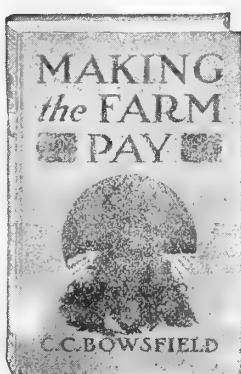
Price, \$1.25 Net.



CHARLES DAWSON

MAKING THE FARM PAY. By C. C. Bowsfield. This very important book tells hows to get the biggest returns from the soil and make farm life more attractive and successful. Farming opportunities, the marketing of produce, the raising of vegetables, fruit and poultry, dairy products, and all phases of agriculture are discussed by an expert. It is the most helpful book on farming ever published. The book is packed with new, practical money-making ideas. 314 pages. Cloth. \$1.25.

The highest praise ever given a farm book. *Making the Farm Pay*, by C. C. Bowsfield, has been received with more enthusiasm than any book published this year on any subject. The critics and farm experts have been unanimous in endorsing the book. Read the following commendations: "An admirable textbook because it is the farmer's best friend. It will make any farmer make his farm pay."—*The Journal of Education, Boston*. "The most helpful farm book ever published."—*Life and Health*. "A book that every city man ought to read and by which every country man would profit."—*New York American*.



friend. It will make any farmer make his farm pay."—*The Journal of Education, Boston*. "The most helpful farm book ever published."—*Life and Health*. "A book that every city man ought to read and by which every country man would profit."—*New York American*.

Inoculate your Alfalfa, Clovers, Cow Peas, Soy Beans, Vetches, and all other legume crops with

Mulford Cultures

FOR LEGUMES

SMALL COST

LARGE RETURNS

EASY TO USE

NO LABOR EXPENSE



Uninoculated ALFALFA Inoculated Photographed on same scale. Plant on left not inoculated—Plant on right inoculated with **Mulford Culture for Alfalfa**. All other conditions identical.

The Contrast Speaks for Itself

MULFORD CULTURES contain pure, tested strains of active, vigorous nitrogen-fixing bacteria, for inoculating seeds of legumes or soil. Enormous numbers of these very valuable and desirable bacteria are thus available to you in every package of Mulford Culture and may readily be applied to your seed. The sealed bottle insures purity.

Increase Your Crops Improv'd Your Soil

LEGUMES OFFER THE BEST-KNOWN MEANS of maintaining soil fertility and rejuvenating overcropped and worn-out fields. They add both humus and nitrogen to your soil and thus increase your yield of wheat, cotton, corn and other non-legume crops.

THE U. S. DEPARTMENT OF AGRICULTURE and many State Agricultural Experiment Stations recommend inoculation of legumes with nitrogen-fixing bacteria to induce a prompt "catch" and increase your yield.

MULFORD CULTURES ARE SCIENTIFICALLY PREPARED and tested by experts, in the biological laboratories of H. K. Mulford Co., Philadelphia, U. S. A., with the same degree of care as Mulford Antitoxins, Serums, Vaccines, etc., which are standard all over the world.

Always specify on your order what crop you want to inoculate, as there is a different strain of bacteria for each legume.

ALFALFA
CRIMSON CLOVER
SWEET CLOVER
WHITE CLOVER
RED CLOVER

ALSIKE CLOVER
COW PEAS
SOY BEANS
CANADA FIELD PEAS
VETCH

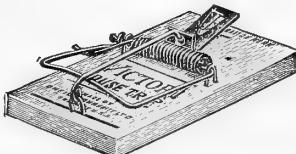
VELVET BEANS
SWEET PEAS
GARDEN PEAS
GARDEN BEANS
LIMA BEANS

PRICES

MULFORD CULTURES are supplied for the varieties of legumes listed, at the following prices:
5-Acre Size ("A Dollar per Acre") \$5.00
1-Acre Size 1.50
1/4-Acre Size50

Why buy expensive commercial nitrates when you can grow legume crops and thus increase your yield and at the same time increase the nitrates and enrich and renovate your soil, by Nature's own method?

FREE DESCRIPTIVE LITERATURE SENT UPON REQUEST.



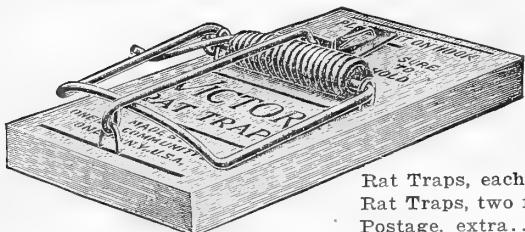
VICTOR MICE AND RAT TRAPS.

Made of hard wood blocks, bait hook designed to make catching sure every time. Long clinched staples that can't come out.

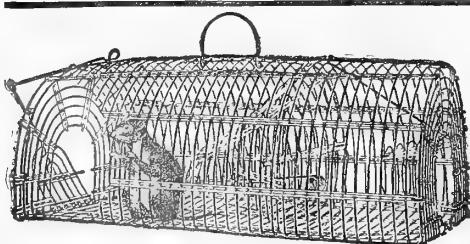
PRICE:

Mice Traps, three for 10 cts.
Postage, extra, 5 cts.

Rat Traps, each 15 cts.
Rat Traps, two for .. 25 cts.
Postage, extra 5 cts.



The "Climax" Rat Trap



The size of this trap makes it the ideal for house use. It is strong and will stand rough use. The patent door eliminates all danger from the caged rats. Size—17 inches long, 9 1/2 inches wide, 7 inches high. No. 17—Coppered wire; nine sheet-steel flanged ribs.

Price, 75 cents.

RAX SCIENTIFIC RATS AND MICE DESTROYER



Rax is a bacteriological preparation, containing Pure Cultures of an active Virus, which has a deadly effect on **Mice, Rats and Field Mice**, but is harmless to all other animals.

Thus **Rax** is not a poison and may be used without the precaution necessary in handling other rat exterminators.

Rats and Mice having eaten the bait prepared with **Rax** become gradually sick and die within ten to fourteen days. While infected they communicate the **Virus** to other rats and mice coming in contact with them or their haunts. They never die inside the buildings, as they become very feverish and seek the open to get fresh air and water.

Rax has no equal as a destroyer of **Rats and Mice**. Directions with every package. Price, 75c.

By Parcel Post, 85c.

RAT-SNAP!

No Danger in Handling—But Do Not Eat

A FEW POINTERS ABOUT RAT SNAP.

By a newly scientific discovery there is **NO SMELL** after rats and mice eat **Rat-Snap**. By the most careful study of the habits and tastes of rats and mice, **Rat-Snap** is so prepared that rats and mice crave it. It is a dessert for them, the last they eat. They leave all other foods for it, while in the cases of home prepared mixtures they will not touch them at all.

Rat-Snap may be dropped in holes or along cellar walls—in fact, all out-of-the-way places. In linen closets without土壤 anything.

Keep away from chickens and stock. When used around chickens, ducks, etc., place in holes and cover with a stone.

Packages, 15c. and 25c.

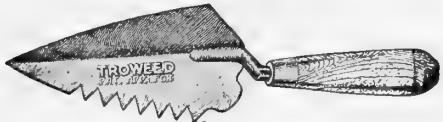
HORTICULTURAL TOOLS AND SUPPLIES



GRASS HOOK

Best English Grass—No. 2.....	\$.70
Best English Grass—No. 3.....	.90
Best English Hedge or Grass Hooks, No. 4.....	1.00
Best English Hedge or Grass Hooks, No. 5, riveted back.....	
American, plain.....	.50
American, polished.....	.60

TROWED



TROWELL—WEEDER-TRANSPLANTER.

This combination tool is a boon to Gardeners, Florists and Greenhousemen. The sharp point enters the soil with ease, picking out the weeds without disturbing growing plants. The saw tooth edge, decided aid in pulverizing the earth and loosening weeds. Does away with separate tools.

Price, Each..... 50c.

GARDEN TROWELS



No. 212—American, 16-gauge tool steel, 6-inch blade, a handle that will not come out in dry weather. Price, 40c.
No. 02—American, 6-inch bright steel blade, plain handle, 20c.
No. 06-X—American, 6-inch tinned steel blade, enameled handle, 20c. Parcel post weight, 1 pound.



No. 164—English, 6-inch best forged steel, socket handle, strong and durable.
No. 164—English, 7-inch, similar to above.
Parcel post weight, 1 pound.



Strong Steel Trowel, with socket handle, very durable. Parcel post weight, 1 pound.



PLAINTAIN TROWELL

No. 2—5-inch blade.....	.25c.
No. 1—8-inch blade.....	.35c.
Parcel post weight, 1 pound.	

EUREKA HAND WEEDE



A Very Handy and Useful Weeder.
No. E—Grip handle..... 40c.
No. EL—2-foot handle..... 55c.
Parcel post weight, 1 pound.

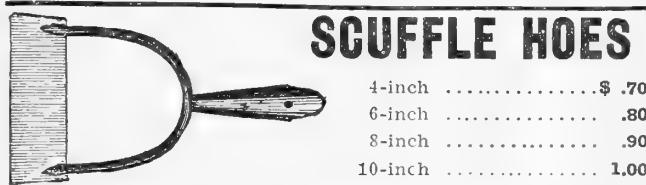
LARGE HAND WEEDE



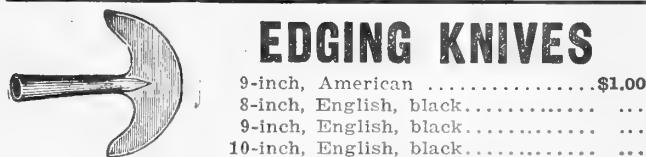
No. 1—Malleable Iron Hand Weeder..... 25c.
No. G—Solid Steel Hand Weeder..... 40c.
Parcel post weight, 1 pound.



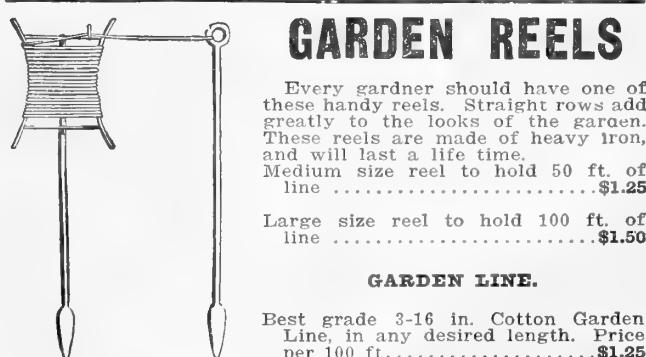
EXCELSIOR WEEDE
Price 20c.
Parcel post weight, 1 pound.



SCUFFLE HOES
4-inch \$.70
6-inch80
8-inch90
10-inch 1.00



EDGING KNIVES
9-inch, American \$1.00
8-inch, English, black90
9-inch, English, black90
10-inch, English, black90



GARDEN REELS
Every gardener should have one of these handy reels. Straight rows add greatly to the looks of the garden. These reels are made of heavy iron, and will last a life time.
Medium size reel to hold 50 ft. of line \$1.25
Large size reel to hold 100 ft. of line \$1.50

GARDEN LINE.
Best grade 3-16 in. Cotton Garden Line, in any desired length. Price per 100 ft. \$1.25

DIBBERS

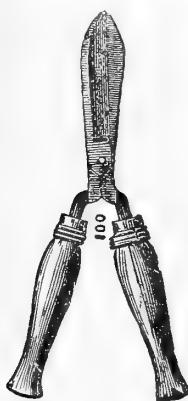
For transferring plants. By far the best thing for the purpose ever introduced.

Right-angle shape, steel-polished, wood handle, 50c.
D-handle Dibber, 80c.



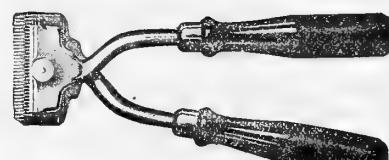
HORTICULTURAL TOOLS AND SUPPLIES—Continued

HEDGE SHEARS



No. 100—8-inch	\$1.85
No. 100—9-inch	2.00
No. 100—10-inch	2.25
No. 100—12-inch	3.25
No. 101—8-inch, with notch....	2.00
No. 101—9-inch, with notch....	2.25
No. 101—10-inch, with notch....	2.50
No. 101—12-inch, with notch....	3.50

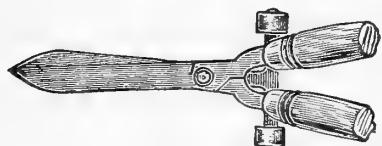
HORSE OR DOG CLIPPERS



No. 179—Coates Horse Clipper.....	\$2.50
No. 159—Coates Ball-Bearing Horse Clipper.....	3.00

Parcel post weight, 2 pounds.

AWN SHEARS



No. 1062—2 wheels, 8-inch blade, for cutting on narrow borders, under fences and shrubs, \$8.00.

BORDER SHEARS



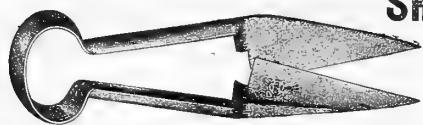
No. 104—Price, without wheel.....	
No. 105—Price, with wheel.....	\$6.25

GRASS SHEARS



No. 1360—Bent Handle.....	50c.
No. 460—Trowel Handle.....	60c.

SHEEP SHEARS



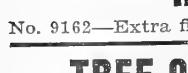
No. 055.....	\$1.50
No. 3755, Full polish,	\$1.50
No. 3075.....	\$1.75

HORSE SHEARS



No. 1087—Bent Handle.....	60c.
No. 1090—Curved Handle.....	70c.

HORSE SCISSORS



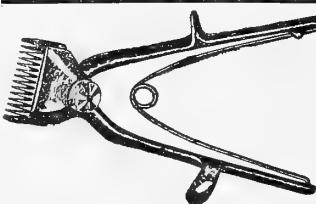
No. 9162—Extra fine.....	\$2.00
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TREE OR BOX SCRAPER



Price, 75c. Parcel Post Weight, 2 Pounds.

TOILET AND FETLOCK CLIPPERS



No. 71—Fetlock Clipper.....	\$1.75
Yankee Clipper	1.50

Parcel post weight, 1 pound.

WIRE PLIERS

Fence Wire Cutters—6-inch, 50c.; 8-inch, 60c.; 10-inch, 75c.

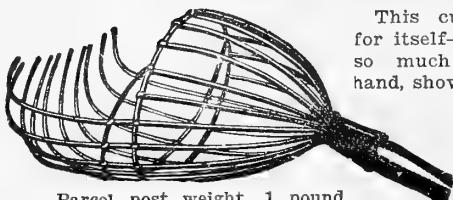


Flower and Grape Scissors

No. 3791—Flower Gatherer	\$..
No. 3774—Grape Pickers .....	.50
No. 3794—Grape Thinning Scissors.....	..

5c. extra for postage.

FRUIT PICKER



This cut almost speaks for itself—the device, being so much like the human hand, shows at once the utility of the article. As a Fruit Picker it has no superior. It is made of heavy wire, and easily adjusted to a pole.....

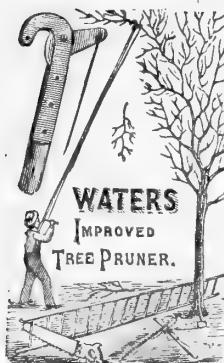
SCYTHE STONES



Darby Creek
Manufactured by
CLEVELAND STONE CO.
CLEVELAND, OHIO.

	Each.	Dozen.
Darby Creek	25c.	\$3.00
Western Red End.....	15c.	1.25
Quinnebog	20c.	1.60
English Round	35c.	3.25

HORTICULTURAL TOOLS AND SUPPLIES—Continued



Water's Tree Pruners

4 feet.....	\$1.25
6 feet.....	1.35
8 feet.....	1.45
10 feet.....	1.60
12 feet.....	1.75
14 feet.....	2.25
Extra Knives.....	.40

TELEGRAPH TREE PRUNERS

Price without pole..... \$1.75
Extra blades..... 40c.

PRUNING SHEARS



No. 4—Flat Spring, Steel Blade.....	\$.60
No. 33—Coil Spring, Mal. Handle, Steel Blade.....	.60
No. 1537—Solid Steel, half polish, 9-inch.....	1.25
No. 4665—Solid Steel, 9-inch.....	1.25
No. 4666—Solid Steel, full polish, 9-inch.....	1.50
No. 2—French Pruning, 8½-inch.....	
No. 544—Ladies', nickel-plate, 6-inch.....	2.00
Parcel post weight, 1 pound.	

PRUNING KNIVES

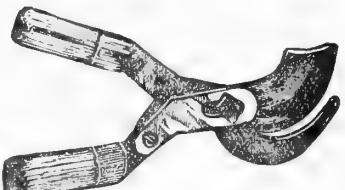
No. 66105—Cocoa Handle \$1.00

BUDGING KNIVES

No. 1508R \$1.25
No. 1510B 1.50

LOPPING SHEARS

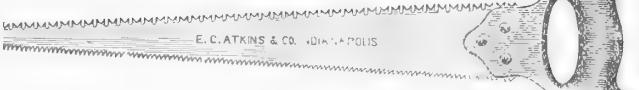
The Baltimore Draw Cut Shear is extra strong, and will cut large limbs with the least exertion.



The American or Tip Top Shear is light and strong, and is very handy for light work. It will not tire you to handle it.

No. 5—American, or Tip Top.....	\$1.25
No. 4—American, or Tip Top.....	1.50
No. 3—Searight, Extra Heavy.....	3.25
No. 1—Baltimore Draw Cut.....	3.60
No. 2—Baltimore Draw Cut.....	2.75

PRUNING SAWS



No. 2 Saws,	
16-inch double.....	\$.90
18-inch double.....	1.00
20-inch double.....	1.10
No. 2 Saws,	
16-inch single.....	\$1.00
18-inch single.....	1.10
20-inch single.....	1.25

Florists' Soil Pulverizer

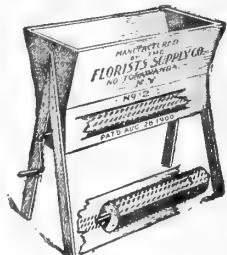
JUST THE THING

To Pulverize Soil, Crush Sod and Mix Fertilizer. Simple, Durable, Easily Operated. Made in 3 Sizes.

No. 1—6x21-inch roll and 46 inches high. Suitable for houses of 5000 or less feet of glass. Price, —

No. 2—6x42-inch roll and 46 inches high. Suitable for larger establishments. Price, —

No. 3—Same as No. 2, with one extra roll and two extra side plates for reducing the soil finer. Price, —



THE CHALK PLANT STAND

AI BOON TO FLOWER LOVERS

A GARDEN IN YOUR HOUSE OR ON YOUR PORCH.

By loosening one bolt, it can be knocked down flat. The Chalk Patented Flower Stand is a practical invention by a practical man. An invention inspired by his needing something which he could not buy—HE MADE IT.

The illustrations show the Chalk Plant Stand set up with drip pan in position. The stand is designed with a view to strength, holding capacity, convenience and to having a stand that will give the plants light and air, and on which they may be freely watered either in the house or on the porch. As a result the problem of having house plants of luxuriant growth is simplified.

The Chalk Plant Stand is also valuable to florists, as it is the thing for displaying plants in stores and on market stalls.

PRICE..... \$12.50

The Chalk Flower Stand Ready for Use.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

FLORIST AND GARDEN SUPPLIES

PLANT SPRINKLERS



For sprinkling cut flowers, seedlings, plants, clothes, etc.
No. 1—Standard, 12-ounce \$1.75
No. 2—Standard, 7-ounce 1.50
Parcel post weight, 1 pound.

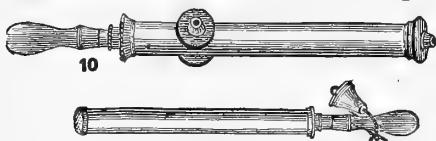
PUTTY BULB

This improved Putty Bulb is made from a good grade of rubber. For glazing greenhouses, new or old; will be found very handy.

Price \$1.75
Parcel post weight, 1 pound. We do not guarantee rubber goods.



Brass Garden Syringes



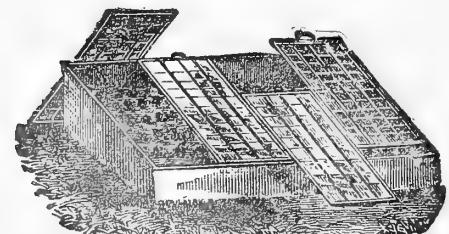
Made of heavy brass, which will last for years.
No. 101—1x12, Rose and single stream
No. 102—1½x16, Rose and single stream
No. 103—1½x16, Rose and single stream
No. 109—1¼x16, Single stream and two roses
No. 110—1½x18, Single stream and two roses

Wool-Lined Hot-Bed Mats



Made of strong Drill, interlined with wool.
Price, 40x76, each \$2.50
Price, 76x76, each \$4.25
Special Price in Dozen Lots.

Unglazed Hot-Bed Sash



3 ft. 2 in. x 6 ft.
Price, \$1.75 each.

MARLINE

Furnished in 1, 5, 10, 15 and 20-pound bales.
5-Pound Bales 50c. per pound
1-Pound Bales 55c. per pound
Special Prices in Quantities.

MASTICA

Mastica.—For glazing greenhouses, sashes, new and old. It is elastic, adhesive and easily applied. It is not affected by dampness, heat or cold. "Mastica," when applied, in a few hours forms a skin or film on the entire mass, hermetically sealing the substance and preventing the evaporation of the liquids, and remains in a soft, pliable and elastic condition for years. "Mastica" is of great value in going over old houses with a putty bulb or machine on the outside of sash, as it makes it perfectly tight and saves the expense of relaying the glass.

1-gallon cans \$2.40



MASTICA GLAZING MACHINE

Our Special Price \$2.40

TWEMLOW'S OLD ENGLISH GLAZING PUTTY

Semi-Liquid.

16-pound can (1-gallon capacity)
80-pound kits (5-gallon capacity)

For bedding glass in sash and filling cracks or seams in roof joints or frames of greenhouses or hotbeds.

PERMANITE

For glazing greenhouses new or old, and stopping leaks in gutters, making them permanently tight.

Can be easily applied with Permanite applying machine. This article is used by many of the largest greenhouse construction companies, where the best is demanded.

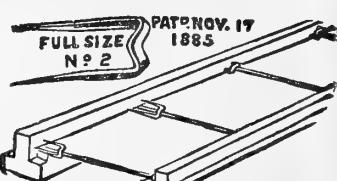
1-Gallon Cans	\$1.95
5-Gallon Cans, per Gallon.....	1.85
20-Gallon Kegs, per Gallon.....	1.75
30-Gallon Drums, per Gallon.....	1.65
60-Gallon Barrels, per Gallon.....	1.65

PERMANITE MACHINES, Each, \$6.50.

PEERLESS GLAZING POINTS

(Imp. Van Reyper.)

The finest glazing points on the market. The glass cannot slip; they are quickly and easily put in with special pincers; no "rights" or "lefts" to bother with.



Per box of 1000 60c.
Pincers, per pair 50c.
Parcel post weight, 2 pounds.

GRAFTING WAX

1/4-lb 15c. 1/2-lb 25c. 1-lb 50c.

SPHAGNUM MOSS

For packing growing Orchids, Plants, etc. Per bale \$3.25

RAFFIA

The best material for tying Plants, Vines, etc.
Per Pound, 40c.

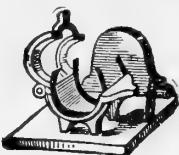
Florist and Garden Supplies—CONTINUED

ASPARAGUS KNIFE



Made of solid steel; see the cutting point. Price....50c. each
Parcel post weight, 1 lb.

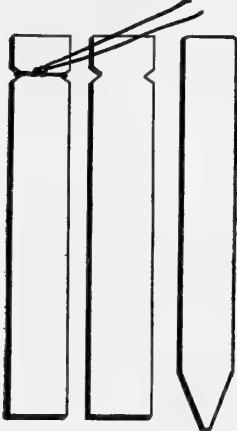
ASPARAGUS BUNCHER



Put your asparagus up in bunches, with this Improved Asparagus Buncher. It is adjustable for all lengths of bundles, correct in design and quick in operation. It makes a well-formed, compact bundle, adding greatly to the looks of the vegetable.

Price, each.....\$3.50
Parcel post weight, 5 pounds.

POT LABELS



	Plain. Painted.
4 -inch, per 1000.	.85 \$1.25
4½ -inch, per 1000..	.95 1.35
5 -inch, per 1000..	1.15 1.55
6 -inch, per 1000..	1.45 2.00
12 -inch, per 100...	.95

Special price in quantities to florists.

PAINTED TREE LABELS

	Per 1000
3½ -inch, notched	\$1.25
3½ -inch, iron wired.....	1.55
3½ -inch, copper wired.....	2.00

HEAVY OR DAHLIA STAKES

	Each.	Per Doz.	Per 100.
3 feet.....	10c.	\$1.20	\$9.00
4 feet.....	15c.	1.50	12.00
5 feet.....	18c.	2.00	15.00
6 feet.....	20c.	2.25	18.00

LIGHT PLANT STAKES

	Each.	Per Doz.	Per 100.
1½ feet.....	3c.	35c.	\$1.50
2 feet.....	4c.	45c.	3.00
2½ feet.....	5c.	55c.	4.25
3 feet.....	8c.	75c.	5.50

GALVANIZED HARD STEEL PLANT STAKES

These are a great improvement over the wooden stakes for carnation and rose beds; they are durable, neat and strong.

	Per 100	Per 1000
2½ feet.....
3 feet.....
3½ feet.....
4 feet.....
5 feet.....

CANE STAKES

	5 to 7 feet long.	Per 1000.....\$8.00
Per 100.....\$1.00		

IRON-CLAD WATERING POTS

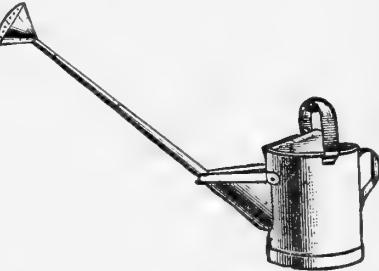


4-quart....	\$.70
6-quart....	.85
8-quart....	1.00
10-quart....	1.20
12-quart....	1.35
16-quart....	1.70
20-quart....	3.15

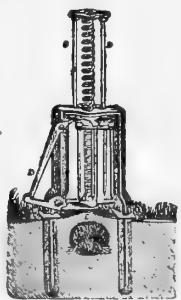
Wotherspoon Watering Pots

These pots are made from the best grade of galvanized iron, and are very heavy and strong. The long spout makes them very desirable for greenhouse and flower bed use. Each can is equipped with a fine and coarse nozzle, with copper perforation.

6-quart.....	\$4.00
8-quart.....	4.50
10-quart.....	5.00
12-quart.....	5.50



L. M. Olmstead's Improved Reliable Mole Trap



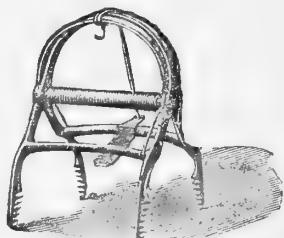
Without a doubt, the best mole trap made, built so that you can place a weight upon it, insuring perfect action, even in the softest ground. It is built low, and can be used in many places that a taller trap would not do.

Our Special Price.....\$2.00
Parcel post weight, 2 pounds.

OUT-OF-SIGHT MOLE TRAP

Considered to be one of the best and cheapest Mole Traps on the market. Especially valuable for hot-beds and frames on account of convenient size.

Price.....\$1.25
Parcel post weight, 2 pounds.



THE LITTLE GIANT MOLE TRAP

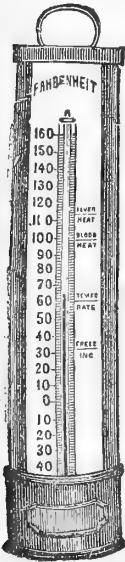
Self-setting by pressing down on lever. Very convenient feature found on no other trap. Made from best spring steel, thoroughly galvanized. Simple and durable in its construction.



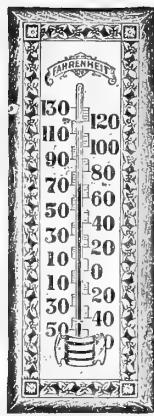
Price.....\$1.25

Parcel post weight, 2 pounds.

THERMOMETERS



No. 5440.



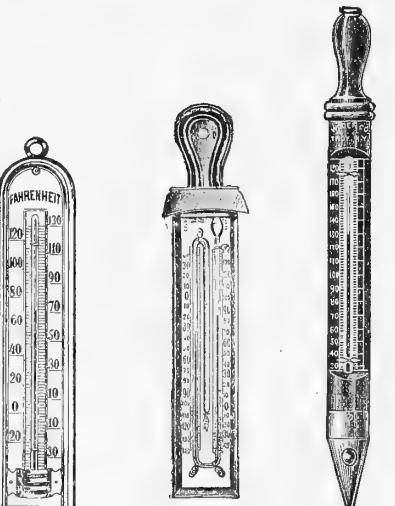
No. 5162.

No. 5440—8-in. tin japanned.....**.35c.**No. 5420—10-in. tin case, best quality, tested.....**\$1.00**No. 5442—12-in. Tobacco Curing, best quality, tested.....**.75c.**No. 5162—10-in. Distance Reading; an excellent thermometer for greenhouses and for use where it is necessary to get a quick reading, **.50c.**If thermometers are wanted by parcel post, add **10c.** for postage and packing.

No. 5120.



No. 5140.

No. 5120—8-inch Cabinet, magnifying tube, black oxidized scale, white figures and graduation, brass screw clasps and guard, back of oak finished, natural.....**\$1.00**No. 5140—8-inch Cabinet, magnifying tube, black oxidized brass scale, white filled figures, nickel straps and guard, wood back, finished in birch.....**.75c.**If thermometers are wanted by parcel post, add **10c.** for postage and packing.

No. 5232.

No. 5472.

No. 5981.

No. 5232—Porcelain Scale Wood Back, magnifying tube, porcelain bevel edge scale, annealed black figures, oak back, polished all sides.

8-inch **\$1.40**
10-inch **1.75**
12-inch **2.00**No. 5472—Self-Registering, boxwood scale, black filled figures, japanned tin case, 10-inch.....**\$5.50**

No. 5981—Hot Bed, 16-in., wood frame, with handle, brass pointed ferrule, brass oxidized scale, white filled figures and graduations

Add **10c.** if by parcel post.

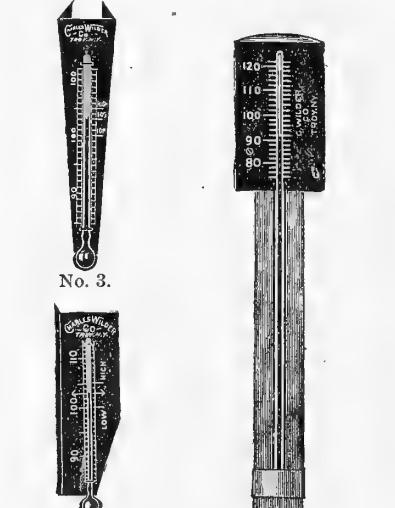
No. 5730.

No. 5730—Standard Dairy, stands boiling water; black oxidized brass scale, white filled figures and graduations range from 20 to 220 degrees.....**\$1.00**No. 5115—Floating Glass Dairy... **1.00**

No. 3744—Floating Glass Dairy, large size.....

Add **10c.** if by parcel post.

No. 3740.



No. 2.

No. 6.

No. 1—Hang-up Thermometer, with wire hanger, each **\$1.25**; price, postpaid.. **\$1.35**No. 2—Universal; may be used as hang-up, reclining, stand-up or inclining with proper holder. Without holder, each, **\$1.00**; postpaid.....**\$1.10**No. 3—Reclining or lay-down pattern, each, **\$1.00**; postpaid.....**\$1.10**No. 5—Incline, with holder, each, **\$1.00**; postpaid.....**\$1.10**No. 6—Brooder Thermometer for Prairie State Brooders, each, **\$1.00**; postpaid, **\$1.10**.No. 7236—Milk Hydrometer (Quevne), **\$1.25**.No. 7410—Lime - Sulphur Hydrometer, **\$1.25**.No. 7410—Lime - Sulphur Hydrometer, with test jar, **\$1.75**.If by parcel post, add **20c.**

No. 7410.

GRIFFITH & TURNER CO.

ALWAYS ORDER BY FIGURE AND NUMBER WHERE GIVEN

Leggett's Champion Dry Powder Duster

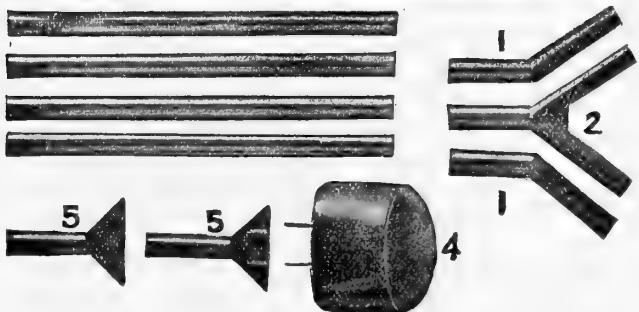


For farm, garden, vineyard, tobacco fields, etc. Adjustable to any width of row. Many thousands in use. Distributes Paris Green, London Purple, Hellebore, Sulphur, Lime, Dry Bordeaux Mixture, Dry Bordeaux Mixture and Paris Green Compound, Spanish Pink, Pyrethrum Powder, etc.

Dusts potato vines as fast as you walk, two rows at a time. Illustration below shows tubing and nozzles. Any one can use it. Weighs, cased for shipping, 17 pounds.

This Machine keeps the Poison at a Safe Distance from the Operator.

Our Special Price, \$15.00

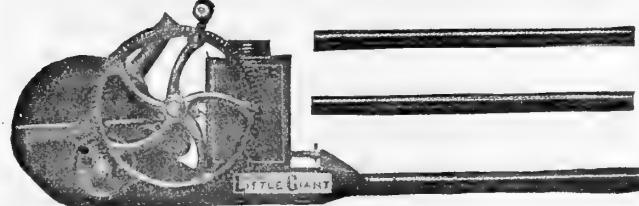


Champion Dry Powder Duster, \$15.00
Champion No. 2 - - - 20.00

Little Giant Powder Duster

This Duster is somewhat like the Champion Duster, except it is lighter and has a smaller capacity. A fine machine for use on small places. And will do the work well. It is nicely made and very strong. Illustration below shows pipes and nozzle.

Our Special Price.....\$12.00



LITTLE GIANT POWDER DUSTER, \$12.00

THE ACME POWDER GUN



Consists of a tight valveless bellows equipped with a distributing tube or nozzle, a funnel, a spreader for diffusing the spray and an elbow for placing the spray on the underside of the leaves. Handles of convenient length and bellows of fine russet leather. A very practical and convenient way of applying Paris Green, Lice Killers, Insect Powder, etc. Parcel post weight, 2 pounds.

Our Special Price.....\$1.40

Midget Tin House Sprayer



Similar to Tin Can Sprayer, only smaller. Holds half pint. Indispensable in every household. Just the thing for disinfecting sick rooms, drains, vaults, kennels, etc. Also rose bushes or any small shrubbery. Will

successfully apply any non-sedimental liquids. Parcel post weight, 1 pound. Price, 50 cents.

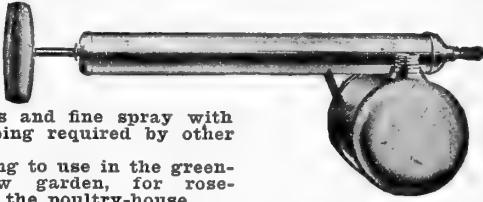
Gritco Tin Can Sprayer



For spraying insecticides on plants and flowers, disinfectants in sick rooms, kennels, cellars, drains, vaults, poultry houses, etc. Tank, 4 inches in diameter, 4 inches deep; air chamber, 14½ inches long, 1¾ inches in diameter. Coppered steel plunger rod. Made of heavy tin plate. Each one tested for leaks and sprays. Capacity, one quart. Parcel post weight, 2 pounds.

Our Special Price.....65c.

Auto Compressed Air Sprayer



A continuous and fine spray with half the pumping required by other atomizers.

Just the thing to use in the greenhouse, window garden, for rose bushes and in the poultry-house.

Will handle all solutions, insecticides and disinfectants. Made throughout of stout material. Copper siphon tube, bronze ball valve, plunger rod, ¼-inch, copper plated steel. The solution does not come in contact with the pump cylinder. The spray may be adjusted by a slight turn of the nozzle cap.

No. 25A. All Tin.....\$1.00
No. 25B. Tin Pump and Galvanized Reservoir.....1.25
No. 25C. Tin Pump and Brass Reservoir.....1.50

THE ACRE-AN-HOUR SIFTER

Made from heavy tin, bottom and side perforated. Can be adjusted to put on a small or large quantity of dust on potatoes or other vines. Parcel post weight, 2 lbs.

Price.....\$1.00



DICKEY DUSTER



Parcel post weight, 2 pounds.
Price.....50c.

LEVER BUCKET SPRAY PUMPS

Fig. 632.

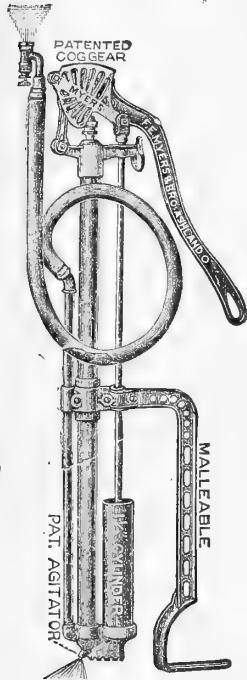


Fig. 632 represents the Myers Lever Bucket Spray Pump, made of brass, and fitted with brass ball valves and patented agitator. The cylinder is $1\frac{1}{2}$ inch in diameter with solid plunger. The air chamber is fifty per cent larger than the ordinary bucket spray pump, has malleable iron foot rest and malleable lever. This pump can be operated with one-half the power of the ordinary bucket spray-pump, owing to the advantage of the lever handle. This pump can also be used as a barrel spray pump the head having two holes in for bolting same to the barrel.

We recommend a Bordeaux Spray Nozzle for whitewashing and painting, if you desire the Vermorel Nozzle instead of the Bordeaux, please specify.

Fig. 632, No. R 324 Lever Bucket Spray Pump, with agitator, complete with hose, Bordeaux, coarse spray and solid stream nozzle.

Our Special Price....\$7.50

No. R 324A Lever Bucket Spray Pump, with agitator, complete with hose, Bordeaux, coarse spray and solid stream nozzle and eight foot pipe extension.

Our Special Price....\$8.00

No. R 324B Lever Bucket Spray Pump, with agitator complete with hose, Bordeaux coarse spray and solid stream nozzle and eight foot pipe extension with stopcock.

Our Special Price....\$9.00

LITTLE GIANT BRASS SPRAY PUMP AND FIRE EXTINGUISHER WITH AGITATOR

Fig. 639.

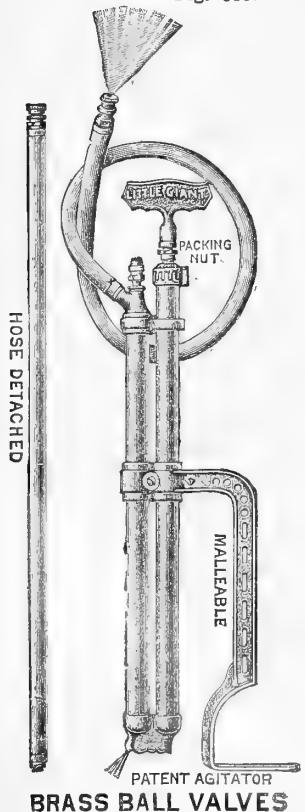


Fig. 639 Spray Pump is constructed entirely of brass. They are so arranged that the labor of pumping is all on the downward stroke of the piston and nothing on the up. The effect of this operation while pumping is to hold the pump down. The foot rest steadies the pump, holding it in proper position. It is provided with a large air chamber and has brass ball valves and detachable hose; the nozzle throws a continuous spray, and is not affected by the movement of the plunger. Will throw a solid stream fifty feet, and is of unusual value in spraying trees, washing windows and buggies, extinguishing fires, spraying flowers and etc.

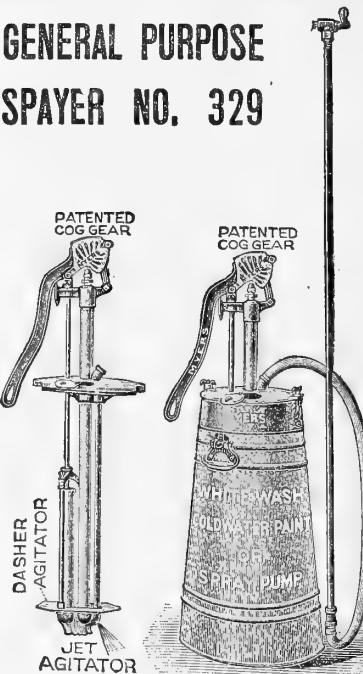
No. 327 $\frac{1}{2}$, Fig. 639. Bucket Brass Spray Pump, complete with hose and combination fine, coarse spray and solid stream nozzle.

Our Special Price....\$4.75

No. 328, Fig. 639. Bucket Brass Spray Pump, complete with hose and combination fine, coarse spray and solid stream nozzle, and an eight-foot pipe extension.

Our Special Price....\$5.25

THE MYERS WHITEWASH, COLD WATER PAINTING MACHINE AND GENERAL PURPOSE SPAYER NO. 329



This General Purpose Spayer with patent Double Agitator is a most complete and serviceable outfit. The tank is made of heavy galvanized iron with a wide bottom so as to set steady in operation. The cover is removable, is held securely in place by two thumb nuts, one on each side, which holds the cover tight and prevents spilling or splashing of the liquid. Holds 7 gallons.

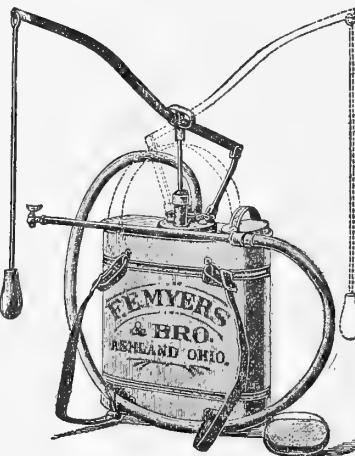
This is an excellent outfit for whitewashing chicken houses, fences and outbuildings. For spraying trees, shrubbery, plants and in fact anything where a small sprayer can be used. This outfit will be found just the thing.

The pump used in this outfit is the same as the No. 324 Sprayer as shown under Fig. 632, fitted with Bordeaux nozzle, brass ball valves, and has jet and dasher agitator.

Complete with Hose, Nozzle, Agitator and Extension Rod.

Our Special Price, \$13.75

THE LEVER KNAPSACK SPRAY PUMP

Fig. 547.—No. 330
Galvanized.

Tank holds 5 gallons, is fitted with lid, and strainer, which can be removed. This Pump has lever, large air chamber, ball valves, solid plunger and agitator. Fitted with 5 feet $\frac{1}{2}$ -inch hose, pipe extension and Bordeaux spray nozzle; can be graduated from a fine mist to a solid stream, or shut off entirely.

Our Special Price, \$12.50

THE PERFECT KNAPSACK SPRAY PUMP

Fig. 547.—No. 331. Copper.

Is the same as No. 330, except tank is constructed entirely of copper. Complete with hose, stop-cock, pipe extension and Bordeaux nozzle.

Our Special Price.....\$20.00

FOR SPRAYING MATERIALS, SEE PAGES 93 TO 97.

ALWAYS ORDER BY FIGURE AND NUMBER WHERE GIVEN

AUTO SPRAY No. 1



Auto-Spray No. 1B—Brass Reservoir, Auto-Pop. Our Special Price, \$10.00.

EXTRAS.

Auto-Pop Nozzles	\$2.00
Extension Pipe, brass, 2-foot length, 60c.; galvanized.....	.45
Brass Elbow Extension.....	.30
Double Row Attachment.....	1.50
Brass Strainer for straining solutions used in Auto-Spray	1.40

Weight empty, 7 lbs.
Weight loaded, 39 lbs.
Weight shipping, 15 lbs.
A Self-Operating or Automatic Sprayer.

The Auto-Spray No. 1 is one of the best on the market. It is very strong and practical. When properly charged contains three gallons of solution and one gallon of compressed air. Ten to twelve strokes of the plunger will compress the air and two pumpings will empty the entire contents.

All parts which come in contact with solution are made of brass, and the handle and other parts are made of malleable iron.

Length of cylinder, 21 inches; diameter of cylinder, 7 inches; capacity, about 4 gallons; weight, empty, 7 pounds.

Auto-Spray No. 1C—Galvanized Reservoir, Stop Cock, Our Special Price, \$6.75.

Auto-Spray No. 1D—Galvanized Reservoir, Auto-Pop. Our Special Price, \$7.25.

Auto-Spray No. 1A—Brass Reservoir, Stop Cock. Our Special Price, \$9.50.

GRITCO-D SPRAY PUMP



This is one of the most convenient outfits for general use. As an all-round utility sprayer it cannot be beaten. It is particularly adapted for both the garden and greenhouse, also for orchard use, as well as for spraying live stock. It is a splendid whitewashing outfit.

SPECIFICATIONS.

Has 1½ brass cylinder, brass ball valves and seat, brass plunger and special plunger packing, twin paddle agitators, 24-gallon metal wheels, 24 in. in diameter, with 2-in. tires. Strong iron axle. Hub-to-hub measurement, 33 in.

Six feet ½-in. discharge hose and Bordeaux nozzle. Shipping weight, 120 lbs. Price, complete as described, \$32.00.

"PERFECTION" SPRAYER

Built on the best lines, of high-grade material.

The tanks are made of heavier metal than has ever been used in sprayers of this kind, are lock seamed at the corners to convex heads of metal two gauges heavier than the sides.

The pump is 1¾-inch seamless brass tubing with a brass valve, and is sealed into the top of the tank with heavy threads following the construction used in the best makes of fire extinguishers.

The hose is attached to the sprayer at an angle so that it will not kink and become broken.

The hose is equipped with a special automatic shut-off nozzle.

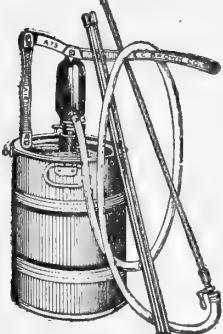
All sprayers tested to 60 pounds before leaving factory.

Weight, 9 pounds empty.

**Galvanized Steel \$7.25
All Brass..... \$10.00**



AUTO SPRAY No. 40B



Capacity, 8 gallons.
Net weight, 33 pounds.
Shipping weight, 45 pounds.

The Auto-Spray No. 40 B is especially adapted for spraying whitewash, cold-water paint, as well as for spraying trees, lawn vegetables, vines and plants.

Correctly designed on mechanical principles, with every unnecessary part eliminated.

The machine is equipped with 8-foot high-grade spray hose, 8-foot iron extension rod, lever shut-off and latest pattern Vermorel Nozzle.

Auto-Spray No. 40B, with 8-gallon galvanized tank equipped as described above.

Our Special Price..... \$20.00

AUTO SPRAY No. 40D

The Auto-Spray No. 40D is mounted on a steel truck, with a 20-inch steel wheel with a broad tire, and is especially adapted for garden, lawn and vineyard work.

The tank is made of heavy galvanized steel with a broad, flat bottom, which rests firmly on the ground while in operation.

Plunger Brass 1½ inches in diameter, 3 to 4½-inch stroke as desired. The plunger operating in connection with the air chamber ensures greater reserve capacity than is usually found in this size machine. Plunger style pump. Graphite packing adjustable from the outside by tightening two bolts. Brass ball valves. Suction pipe fitted with brass strainer. Mechanical agitator operated from the handle.

The top casting on tank has broad flange, which prevents the solution from slopping over.

Equipped with 8 ft. ¾ heavy spray hose, 8 ft. iron extension, lever shut-off and latest pattern Vermorel nozzle.

Repair list, with formula for mixing whitewash and cold-water paint, with each machine.

Price, complete with 12-gallon galvanized-steel tank, \$28.00.

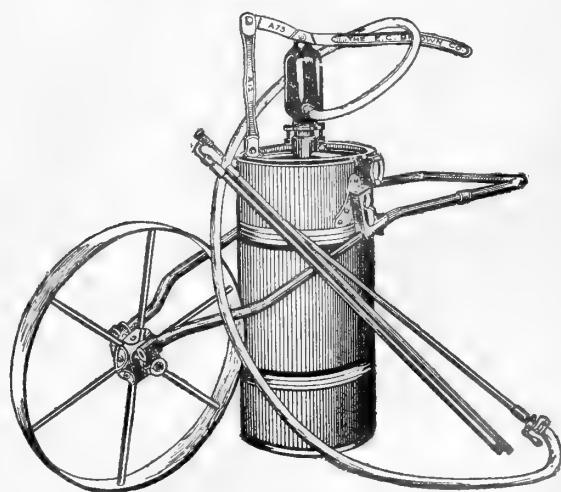


Fig. 1188.
Weight, 41 lbs.



GOULD'S "Fruitall" Spray Pump

All Working Parts
Bronze.

The Fruitall Sprayer is first-class in every respect. While the simplicity of its design allows it to be sold at a very reasonable price, and although lighter in weight and smaller in capacity than the "Pomona," we offer it as a thoroughly serviceable sprayer. The sprayer is held in place in the barrel by an adjustable clamp at the top fitting over the end of a stave, and an anchor at the bottom of the barrel. The plunger is packed from the outside, so it is not necessary to take the entire pump apart to repack.

Plunger, 2 inches diameter; stroke, 4 inches.

Our
List Special
Price. Price.

Fig. 1188.—Pump only with Agitator and Hose Couplings.....	\$21.12	\$13.20
Fig. 1188.—Outfit A.—Pump with Agitator, Hose Bands and Couplings and one Mistry, Jr. Nozzle for one lead of hose, but without Hose.....	23.85	14.75
Fig. 1188.—Outfit B.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle and 15-foot lead No. 1 Spray Hose.....	29.25	17.80
Fig. 1188.—Outfit C.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-ft. lead No. 1 Spray Hose, fitted in barrel	41.25	23.75
Fig. 1188.—Outfit D.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 1 Spray Hose, 8-foot Iron Extension Rod with Brass Stop-Cock, fitted in Barrel.....	44.06	25.35
Fig. 1188.—Outfit E.—Pump with Agitator, Hose Bands and Couplings, Two Mistry, Jr. Nozzles, two 15-foot leads No. 1 Spray Hose.....	38.00	22.75
Fig. 1188.—Outfit F.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr. Nozzles, two 15-foot leads No. 1 Spray Hose, fitted in Barrel.....	50.00	28.70
Fig. 1188.—Outfit G.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr. Nozzles, two 15-foot leads No. 1 Spray Hose, two 8-foot Iron Extension rods with Brass Stop-Cocks, fitted in Barrel.....	55.60	32.00
Fig. 1188.—Outfit H.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 2 Wire-Wound Spray Hose	30.43	18.50
Fig. 1188.—Outfit J.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr., Nozzle, one 15-ft. lead No. 2 Wire Wound Spray Hose, fitted in Barrel.....	43.45	24.50
Fig. 1188.—Outfit K.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 2 Wire Wound Spray Hose, 8-foot Iron Extension Rod with Brass Stop-Cock, fitted in Barrel.....	45.15	26.15
Fig. 1188.—Outfit L.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr., Nozzles, two 15-ft. leads No. 2 Wire-Wound Spray Hose.	40.40	24.25
Fig. 1188.—Outfit M.—Pump with Agitator, Hose Bands, and Couplings, two Mistry, Jr., Nozzles, two 15-foot leads No. 2 Wire Wound Spray Hose, fitted in Barrel.....	52.40	30.20
Fig. 1188.—Outfit N.—Pump with Agitator, Hose Bands, and Couplings, two Mistry, Jr., Nozzles, two 15-foot leads No. 2 Wire Wound Spray Hose, two 8-foot Iron Extension Rods with Brass Stop-Cocks, fitted in Barrel.....	57.96	30.50
No. 1 Spray Hose, in longer lengths, per foot... .36	.20	
No. 2 Spray Hose, in longer lengths, per foot... .44	.25	

Fig. 1100.
Weight,
66 lbs.



Gould's Pomona Spray Pump

**Plunger—Diameter,
2½ inches; stroke, ad-
justable to 3, 4, 5
inches; discharge, ½-
inch hose.**

**Outside Packed
Plungers. No Leather
Packings.**

For small orchards of a few acres; a good barrel sprayer that will meet every requirement. The factory has devoted much time to the study of practical barrel sprayers, and it is with the utmost confidence we list the "Pomona" as first in our complete line. All of the working parts are solid bronze.

The pump has a steel air chamber, extending from top of pump to valve chamber, making it easy to get up sufficient pressure to continue spraying for some time after pumping has stopped. It is equipped with a long adjustable handle. The pump may be placed in any length barrel, as the barrel plate is adjustable. The agitator is simple, but very effective.

Our
List Special
Price. Price.

Fig. 1100.—Pump only with Agitator and Hose Coupling	\$38.72	24.40
Fig. 1100.—Outfit A.—Pump with Agitator, Hose Bands and Couplings and one Mistry, Jr. Nozzle for one lead, but without Hose.....	41.42	25.75
Fig. 1100.—Outfit B.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle and 15-foot lead No. 1 Spray Hose.....	46.82	28.25
Fig. 1100.—Outfit C.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 1 Spray Hose, Fitted in Barrel	58.82	34.25
Fig. 1100.—Outfit D.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-ft. lead No. 1 Spray Hose, 8-foot Iron Extension Rod with Brass Stop-Cock, fitted in Barrel	61.62	35.85
Fig. 1100.—Outfit E.—Pump with Agitator, Hose Bands and Couplings, Two Mistry, Jr. Nozzles, two 15-foot leads No. 1 Spray Hose.....	55.56	33.75
Fig. 1100.—Outfit F.—Pump with Agitator, Hose Bands and Couplings, 2 Mistry, Jr. Nozzles, 2 15-ft. leads No. 1 Spray Hose, fitted in Barrel..	67.56	39.75
Fig. 1100.—Outfit G.—Pump with Agitator, Hose Bands and Couplings, Two Mistry, Jr. Nozzles, two 15-foot leads No. 1 Spray Hose, two 8-foot Iron Extension Rods with Brass Stop-Cocks, fitted in Barrel.....	73.16	43.00
Fig. 1100.—Outfit H.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 2 Wire-Wound Spray Hose....	47.99	29.50
Fig. 1100.—Outfit J.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 2 Wire Wound Spray Hose, fitted in Barrel.....	59.99	35.50
Fig. 1100.—Outfit K.—Pump with Agitator, Hose Bands and Couplings, one Mistry, Jr. Nozzle, one 15-foot lead No. 2 Wire Wound Spray Hose, 8-foot Iron Extension Rod with Brass Stop-Cock, fitted in Barrel.....	62.79	37.15
Fig. 1100.—Outfit L.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr., Nozzles, two 15-ft. leads No. 2 Wire-Wound Spray Hose.	57.96	35.25
Fig. 1100.—Outfit M.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr., Nozzles, two 15-foot leads No. 2 Wire Wound Spray Hose, fitted in Barrel.....	69.96	41.25
Fig. 1100.—Outfit N.—Pump with Agitator, Hose Bands and Couplings, two Mistry, Jr., Nozzles, two 15-foot leads No. 2 Wire Wound Spray Hose, two 8-foot Iron Extension Rods with Brass Stop Cocks, fitted in Barrel.....	75.52	44.50
No. 1 Spray Hose, in longer lengths, per foot... .36	.20	
No. 2 Spray Hose, in longer lengths, per foot... .44	.25	

GRIFFITH & TURNER CO

83

ALWAYS ORDER BY FIGURE AND NUMBER WHERE GIVEN

THE MYERS POWER SPRAY GUN

LENGTH OVER ALL, 26 INCHES.

Utilizes the Entire Capacity of any Power Spray Pump and Does Away With All Bamboo Extensions, Nozzles and Fittings.
All Working Parts on the Outside. Not Subject to Corrosion.
Fig. 1824



Fitted for $\frac{3}{4}$ -inch Hose Coupling and $\frac{1}{4}$ -inch Pipe.

Fig. 1824 illustrates the Myers Power Spray Gun designed for use with any Power Spray Pump. Its capacity is only limited by the quantity of material discharged by the pump.

The idea is to enable one man to do the spraying, thus saving the expense of two extra men as is the case with the ordinary spray rig using two lines of hose with bamboo extensions.

By a one-third turn of the handle the spray can be adjusted from a long distance spray reaching the top of the tree to an extremely broad spray sufficient to cover the entire tree or shut off entirely.

It is furnished with four separate spray discs designed to deliver the entire capacity of the pump, either 4, 6, 8 or 10 gallons per minute.

One-third turn of the handle adjusts the spray from a wide open nozzle to a complete shut-off of the mixture.

LIST PRICE, \$16.00. OUR SPECIAL PRICE, \$10.00.

AUTO-SPRAY NO. 5

GENERAL PURPOSE HAND PUMP.



Fig. 468 Pat. Pending.

This pump is the ideal all-purpose hand sprayer. Its field is practically unlimited, as it may be used for spraying trees, vines, garden truck, potatoes and any field crops. It also can be used for handling whitewash, disinfectants, etc.

It is made entirely of brass, doing away with all danger of corrosion. All of the parts are made on screw machine and for that reason are interchangeable.

The pump is double-acting. This feature makes the spray continuous. Anyone who has used a single acting pump of this kind will immediately recognize the advantage in a pump that works on both the up and down stroke.

The pump cylinder is small in diameter and for that reason the operator can generate a high pressure with little labor. In an actual test this pump generated a pressure of 180 lbs. per square inch with ordinary effort.

The pump itself is so constructed that it can be taken apart.

LIST PRICE, \$8.40.

OUR SPECIAL PRICE, \$5.50.

The Gould's new "Sturdy" is a high-grade, two-cylinder, single-acting power spray pump, provided with a worm gear so it can be coupled directly to the engine shaft. No jack or extra gearing is necessary.

The gear ratio is $\frac{8}{3}$ to 1, and the pump is, therefore, suitable for direct connection to engines with speeds of 400 to 600 revolutions per minute. At 50 revolutions per minute the pump has a capacity of 3.40 gallons per minute; at 60 revolutions, 4 gallons, and at 75 revolutions, 5 gallons per minute. It is good for pressures up to 250 pounds. The plungers are heavy drawn brass tubing, outside packed. They are 2 inches in diameter, with a stroke of $2\frac{1}{2}$ inches. The connecting rods are malleable iron. The shaft is steel, and a steel ball thrust bearing is provided to take up the end thrust. The valves and bevel seats are cast bronze. The suction is for 1-inch pipe or hose and the discharges are for $\frac{3}{8}$ - or $\frac{1}{2}$ -in. hose.

All gears are completely enclosed, thus reducing danger of breakage and preventing wear from foreign particles. The air chamber is large, enabling a uniform high pressure to be maintained, and is cored to allow the driving shaft to extend through far enough to operate an agitator. The agitator can be either direct connected or driven by chain and sprocket. The crank pins are extended through the connecting rods to allow for operating a reciprocating agitator. A special flexible coupling is furnished with the pump for connection to the engine shaft. This allows the pump to be operated even when it is not in perfect alignment with the engine shaft. The cylinders and valve boxes are cast separate, making replacements easy whenever repairs are necessary. The valve box covers are held in place by a single bolt, making the valves easily accessible. A drain plug is located at the base to permit the pump to be cleaned out occasionally, and to be drained when not in use. The pump is very compact; the width over all is $14\frac{1}{2}$ inches; the height $19\frac{3}{4}$ inches, and the length to the end of the shaft is $18\frac{1}{2}$ inches.

Pump with Strainer and Hose Couplings	CYLINDERS	SUCTION	DOUBLE DISCHARGE	*Regularly furnished with flexible coupling	APPROX. WT. LBS.	LIST PRICE	OUR SPECIAL PRICE
OUTFIT S.	Diam. 2 ins.	Stroke $2\frac{1}{4}$ ins.	1 in. Hose	$\frac{1}{2}$ in. Hose	120	\$132.00	\$82.50

Pump with flexible coupling, pressure gauge, water relief valve, 10 ft. 1 in. rubber suction hose and strainer, Fig. 70 $\frac{1}{2}$, 4 7/16 in. diameter; two 25-ft. lengths of $\frac{1}{2}$ -in. discharge hose and couplings; two brass Y connections and four "Mistry, Jr., " nozzles with fine discs.

1631—With Flexible Coupling.

Additional suction and discharge hose furnished at extra cost, if ordered.

*When pump is to be direct connected to engine, the diameter of the engine shaft should be given when ordering pump. Pulley furnished instead of flexible coupling, if ordered, at extra cost, depending on size.

GOULD'S

Improved "MONARCH"

Two-Cylinder Spray Pump

Vertical Outside Packed, Bronze Plungers, Bronze Glands, Valves, Etc.

High-Grade Sprayer for Orchard Work. Also for Whitewashing.

Fig. 1506—Has two bronze plungers operating in two vertical cylinders, which are packed with a material unaffected by spraying solutions. This construction permits all gritty particles to pass through valves and out; does not grind the cylinder. Ports are large and direct. Valves are bronze, ground to fit their bronze seats, are accessible through hand-holes. This is the easiest operated Pump of its capacity on the market. Diameter of Cylinder, 2 inches; Suction Hose, $\frac{3}{4}$ in.; Discharge Hose, $\frac{1}{2}$ in.

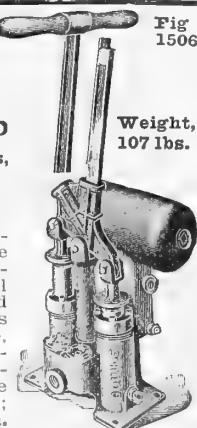


Fig. 1506

Weight,
107 lbs.

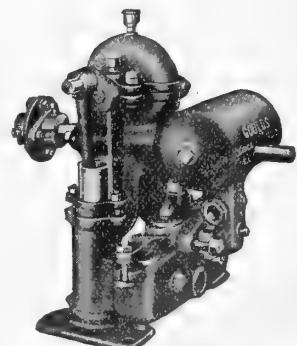
	Our List. Price.	Special Price.
Fig. 1506—Pump only with Suction Strainer and Hose Coupling	\$77.60	\$49.50
Fig. 1506. Outfit A—This outfit includes Pump, Suction Strainer, one Mistry, Jr., Nozzle, Hose Bands and Couplings for one lead, but without Hose	81.90	51.00
Fig. 1506. Outfit B—This outfit includes Pump, Suction Strainer, two Mistry, Jr., Nozzles, Hose Bands and Couplings for two leads, but without Hose	85.24	53.00
Fig. 1506. Outfit C—This outfit is the same as Outfit A, except with one 15-foot lead of No. 1 $\frac{1}{2}$ -inch Discharge Hose and 5 feet $\frac{3}{4}$ -inch Suction Hose	90.30	55.80
Fig. 1506. Outfit D—This outfit is the same as Outfit B, except with two 15-foot leads No. 1 $\frac{1}{2}$ -inch Discharge Hose and 5 feet $\frac{3}{4}$ -inch Suction Hose	99.04	60.75
Fig. 1506. Outfit C2—This outfit is the same as Outfit A, except with one 15-foot lead No. 2 Wire Wound $\frac{1}{2}$ -inch Discharge Hose and 5 feet $\frac{3}{4}$ -inch Suction Hose	92.00	56.55
Fig. 1506. Outfit D2—This outfit is the same as Outfit B, except with two 15-foot leads No. 2 Wire Wound $\frac{1}{2}$ -inch Discharge Hose and 5 feet $\frac{3}{4}$ -inch Suction Hose	103.49	62.25
If Pressure Gauge is wanted, add.....	5.00	3.00

GOULD'S "STURDY"

Duplex Power SPRAYER,
with Worm Gear for Direct
Connection to Engine Shaft

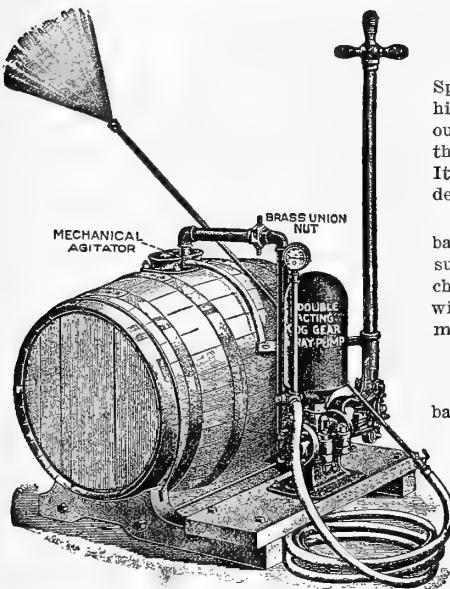
THE "STURDY"

Fig. 1631



ALWAYS ORDER BY FIGURE AND NUMBER WHERE GIVEN

DOUBLE-ACTING SPRAY PUMP MOUNTED ON SKIDS



The general construction of this Spray Pump Outfit cannot be too highly commended. This desirable outfit meets the demand for a pump that can be used in a wagon or cart. It cannot upset. One of the most desirable outfits on the market.

Outfit A—Pump, complete, 50-gal. barrel mounted on skids, with pressure gauge; one 15-ft. lead $\frac{1}{2}$ -in. discharge hose, 8-ft. pipe extension with lever shut-off, spray nozzle and mechanical agitator.

Price, \$53.00.

Outfit B—Pump, complete, 50-gal. barrel mounted on skids, with pressure gauge; two 15-ft. leads of $\frac{1}{2}$ -in. discharge hose, 8-ft. pipe extension with lever shut-off, spray nozzles and mechanical agitator.

Price \$60.00

BRASS BARRELL SPRAY PUMP

Cylinder Valves, Valve Seats and Discharges, All Brass.

No. 304—Pump only, without hose or nozzle.

Our Special Price.....\$12.65

No. 305—Pump, with 15 feet No. 1 $\frac{1}{2}$ -inch Spray Hose and Vermorel or Bordeaux Nozzle.

Our Special Price.....\$17.25

No. 305A—Pump, with 15 feet No. 2 Wire-Wound $\frac{1}{2}$ -inch Spray Hose and Vermorel or Bordeaux Nozzle.

Our Special Price.....\$18.15

No. 306—Pump, with two 15 feet leads of No. 1 $\frac{1}{2}$ -inch Spray Hose and two Vermorel or Bordeaux Nozzles.

Our Special Price.....\$21.85

No. 306B—Pump, with two 15 feet leads of No. 2 Wire-Wound $\frac{1}{2}$ -inch Hose and two Vermorel or Bordeaux Nozzles.

Our Special Price.....\$23.65

The above prices include Paddle Agitator.

ROTARY AGITATOR

Made for Spray Tanks, either chain or belt-driven.

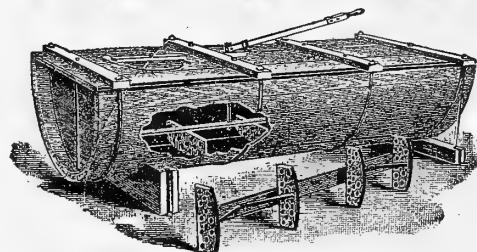


This Rotary Agitator is made similar to propellers used to drive motor boats, consisting of a steel shaft running lengthwise of the tank, fitted with two rotary blades, which drive the mixture in opposite directions, thus causing a thorough agitation of the material.

Fig. 1598 illustrates the Agitator as made to be driven by sprocket chain direct from the engine.....\$15.00

Fig. 1558 illustrates the Agitator as made to be driven by means of a belt.....\$15.00

SPRAYING TANK



We are having our Spray Tanks made of $1\frac{1}{2}$ -inch clear pine, which has proven to be the best material for this purpose. The tanks are gripped with steel rods.

Style No. 2—Weight, 175 lbs.; capacity, 150 gallons; dimensions, 4 feet long, 3 feet wide, 2 feet 6 inches high.

Price, complete with Bolsters, \$20.00.

Other sizes quoted on application.

GOULD'S FIELD CROP SPRAYER

Used in connection with any Hand or Power Spray Pumps



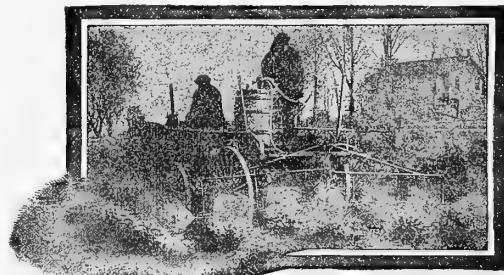
The best and cheapest crop sprayer on the market. Easily attached to tail-board of a wagon, and when not in use can be folded into small space. It is made to spray four or six rows, any distance apart, up to 44 inches, or cover a space $14\frac{1}{2}$ or 22 feet in width. Connection allows sprayer to be easily raised or lowered; spray to be thrown forward, backward, up or down.

Figure 1322.

Complete with four "Mistry, Jr." Nozzles and coupling for connecting to discharge hose of any barrel or power sprayer. List Price, \$30.80; Our Special Price, \$19.25.

Same, with 6 "Mistry, Jr." Nozzles. List Price, \$38.70; Our Special Price, \$24.20.

Connection which clamps to wagon. It is adjustable to any height.



This illustration shows the crop-spraying attachment attached to a wagon. The above prices do not include the sprayer.

AUTO-SPRAY No. 39

ONE HORSE

FOUR ROW FIELD SPRAYER

CAPACITY 50 GALLONS

The Auto-Spray No. 39 is the result of our 13 years of careful study and experience in manufacturing traction sprayers. It was designed to meet the requirements of the most particular growers of field crops, nursery stock, grapes, etc.

We guarantee this machine with 4 nozzles, large aperture, .081 inches in diameter, to maintain a pressure of not less than 150 lbs., or with 8 nozzles, holes in apertures .059 inches in diameter, a pressure of 100 lbs. or better.

The pump on the Auto-Spray No. 39 is driven by a short chain directly connected from the axle and is geared so that there is little draft from the operation of pumping.

By a convenient clutch arrangement this pump may be thrown out of gear with the wheels so that the machine may be drawn without working the pump and this also enables the operator to manipulate the pump with the hand lever while spraying trees.

IN DETAIL

Axle—Cold rolled steel, 1½-inch diameter. Tracks two rows. Wheels adjustable on the axle for various widths.

Wheels—4 feet diameter, 3-inch tire.

Pump—Double cylinder. Plunger style. Brass plungers, 2½-inch diameter.

Packing—Graphite composition, packed from the outside. Adjustable without withdrawing the plunger by simply screwing two nuts over the gland.

Valves—Brass check. Broad brass seats. Set in pump manifold. Can be easily ground or replaced.

Agitator—Revolving twin paddles.

Tank—50-gallon, new barrel, or as ordered. An extra charge will be made for 100-gallon tank.

Air Chamber—Large capacity, tested under high pressure.

Nozzles—Non-Clog Junior Nozzles or as specified. Nozzles on field attachment adjustable to correspond with track.

For barrel, 1 horse; for 100-gallon tank 2 horses are advisable.

Spray Boom may be raised or lowered on the two uprights. Each machine has a perfect valve control and is equipped ready for going to work.

SHIPPING WEIGHT—700 lbs.

Auto-Spray No. 39A—Complete for 4 rows, 4 nozzles, iron piping, 50-gallon barrel, spray boom A..... Our Special Price. \$156.00

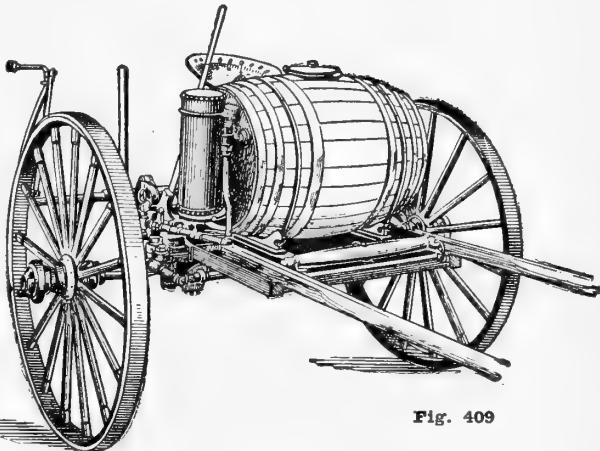
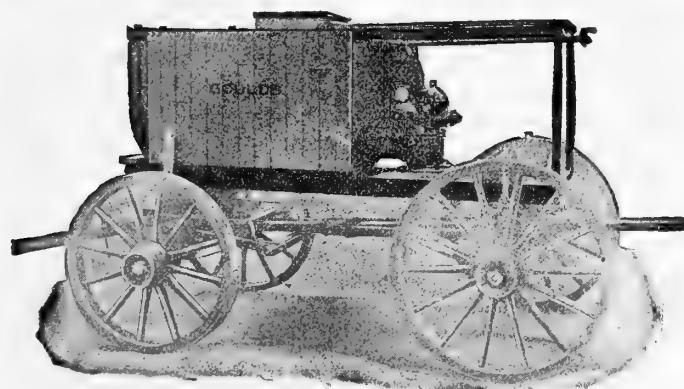


Fig. 409

GRIFFITH & TURNER POWER SPRAYER The Best that Can be Built



The outfit is furnished without engine, so that in case the fruit grower already has an engine he can utilize it in connection with this outfit. Where an engine is wanted with the outfit we can furnish same, and would be pleased to quote prices. Engine can be connected up and disconnected by inexperienced help.

Overall length of rig is 8 feet. Tank is 4 feet in length with height of 30 inches.

This outfit consists of our Fig. 1631 "Sturdy" Power Sprayer, described on page 83, and a 150-gallon tank of 1½-inch clear cypress, mounted on 4-inch steel channels. The Fig. 1631 spray pump is fitted with our special flexible coupling so that it can be direct-connected to any of the small farm engines. The pump is mounted on a ¼-inch steel plate platform which is sufficiently large to accommodate the engine.

The cypress tank is built of tongued and grooved staves which are rounded both inside and out. The top of the tank is fitted with angle iron corners. The tank has an agitator of the propeller type which is operated by chain and sprocket from the pump shaft.

The engine cab is mounted on an angle iron frame and has sliding doors which can be pulled forward to enclose the engine.

The fruit grower already has an engine he can utilize it in

Outfit B	Complete outfit consisting of tank and pump mounted on 4-inch steel channel as described above. Pump fitted with relief valve, pressure gauge and flexible coupling for direct-connection to engine.	Weight Lbs.	Our Special Price	Outfit BB	Same as Outfit B but, including two 25-ft. leads, No. 2 wire-wound ½-in. spray hose and couplings, two Misty, Jr., Spray Nozzles, two 10-ft. bamboo brass-lined extension rods, with shields and brass stop-cocks.	Weight Lbs.	Our Special Price
		650	\$170.00			670	\$195.00

Price does not include gear. Can furnish Mounting for this Sprayer. See No. 22 Low-Down Handy Steel Wheel Farm Wagon listed on page 241.

Sectional View.

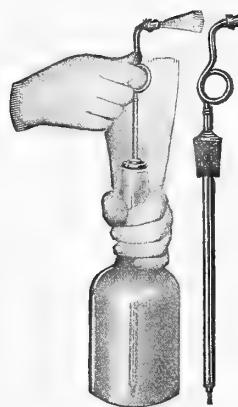
**MISTRY JR.
NOZZLE**THE BEST
NOZZLE YET.

The Misty Jr. Nozzle is made in both Aluminum and Brass with hardened tool steel disks in discharge cap. The steel disks can be inserted without the least trouble.

This nozzle has been tested under all conditions, and found to give entire satisfaction. It produces a perfect mist and covers a wide area. This nozzle is in our opinion the best that can be had.

As, with extra steel disk.....\$1.00
Aluminum, with extra steel disk.....\$1.00
Can also supply these nozzles with 45-degree angle. Same prices as above.

Extra Steel Disks for Misty, Jr.,
Nozzle 5c.
Extra Caps for Misty, Jr., Nozzle 30c.

No.65 "VAPOR" BOTTLE SPRAYER**MADE ENTIRELY OF BRASS WITH
BRASS VALVES.**

The "Vapor" Sprayer consists of a seamless brass tube, working inside of an outer brass tube. The valves are of brass with no parts to wear out. It is made to fit any ordinary bottle, such as is found in every household, and is attached by simply setting in the bottle, as you would a cork; in fact the outer tube is provided with a cork, as shown in the illustration, which fits the opening of the bottle snug, making the Sprayer rigid.

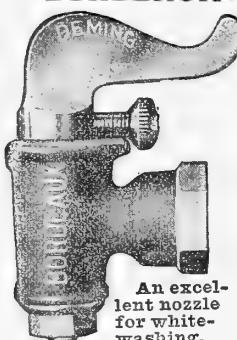
The Sprayer is operated with great ease, with the finger through the loop-hole as shown, and throws a most powerful spray, as fine as a mist; in fact as fine as the steam coming from a tea-kettle.

It is adapted for all kinds of spraying purposes, and cannot be excelled for spraying disinfectants in hospitals, schools, county buildings, etc., for spraying tobacco plants, cigar wrappers, plants about the house, flower beds, shrubbery, also for disinfecting stables, poultry houses, and for sprinkling clothes, in fact for a variety of purposes.

The nozzle is adjustable for fine or coarse spray. The Sprayer being made entirely of brass, there are no parts to rust out if used with strong solutions.

The "Vapor" Sprayer is nicely nickel plated, making it attractive, and is easily operated by man, woman or child.

OUR SPECIAL PRICE \$1.50 (post-paid to any address).

SPRAY PUMP ACCESSORIES**BORDEAUX NOZZLE**

An excellent nozzle for white-washing.

The Bordeaux Nozzle can be readily changed from a solid stream to a mist-like, fan-shaped spray. Should there be any clogging of the nozzles with the spray material, it is easily remedied by turning the handle.

Price.....\$1.00

Fig. 963.

Vermorel Nozzle

This is an improvement on the old style Vermorel Nozzle; spray is finer and more evenly distributed. The cap with smaller hole makes finer spray.

Price, with extra cap, \$1.00 each.

Fig. 55—Gould's Vermorel Nozzle, each, One Discharge, \$1.00; Two Discharges, \$2.25; Three Discharges...\$3.00
Caps for above, 15c. each.

BRASS HOSE NIPPLES

Fig. 89.



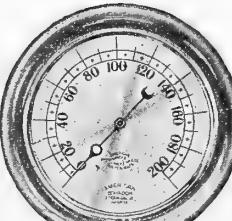
Used in attaching hose to spray pump or iron pipes. Solid Brass.

Fig. 89—Brass Hose Nipple, one end with male pipe thread, other end with hose thread.

1/2-in. or 3/4-in. hose,	1/4-in. iron pipe.	\$.40
1/2-in. or 3/4-in. hose,	1-in. iron pipe.	.40
1/2-in. or 3/4-in. hose,	1 1/4-in. iron pipe	.70
1-in. hose,	1-in. iron pipe	.60
1-in. hose,	1 1/4-in. iron pipe	.75

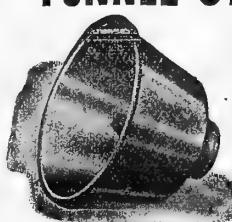
PRESSURE GAUGE

Fig. 30 1/2.



Brass Pin Silvered Dial, with black figures. Up to 200-pound pressure, with stop-cock.

Price—
2 1/2 in....\$2.50
5 in.... 3.00

FUNNEL STRAINER

For straining spray solutions.

Heavy Tin Strainer, with Brass Mesh.

Price....\$1.50

Heavy Galvanized Strainer with Brass Mesh\$1.75

Lever Shut-off Cock, No Dripping

Fig. 64.

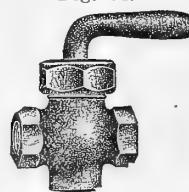


Fig. 64—Lever Shut-off Cock, all brass. Made for use with Pipe Extension. Requires quarter turn only to shut off complete. This quick action makes it a practical device for the purpose. Tapped 1/4-inch pipe size. Price, ea...\$.00

LONG SHANK HOSE COUPLING

Fig. 67—Brass coupling, has one end cut 1/4-inch gas pipe and other end shank to wire into hose. Made from solid brass. Price, each...35c.

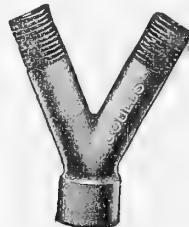
Brass Y for Using Two Nozzles

Fig. 107 1/2—Brass Y, designed so that two nozzles can be used with one lead of hose; is tapped to fit 1/4-inch pipe at butt, which also adapts it to fit our Figs. 65 and 67 couplings for hose.

Price.....75c.

45° BEND BRASS Y

Fig. 1584—Brass Y similar to 107 1/2, but with the two branches of the Y bent as shown.

Price.....75c.



Fig. 49 1/2.—Brass Y is cut 3/4-in. Female Hose inlet, with lateral discharges to fit 1/2- and 3/4-in. Hose Couplings.

Price.....\$1.00

BRASS Y

Fig. 1107—Sixty degree brass elbow, threaded both ends 1/4-inch pipe for use with any nozzle.

Price.....35c.

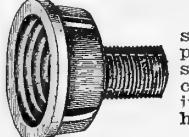
REDUCING COUPLING

Fig. 65—Coupling, small end cut 1/4-inch pipe thread to fit our spray nozzles, large end cut to fit 3/8-inch, 1/2-inch or 3/4-inch male hose coupling.

Price.....40c.

SPRAY PUMP ACCESSORIES

HOSE COUPLING



Fig. 504.

These Hose Couplings are made from brass, thoroughly machined, and are in perfect shape. The $\frac{3}{4}$ -inch are made from spun brass, and are very light and neat, assuring a large flow of water, as the opening is not reduced.

Fig. 504—Brass Hose Couplings:

Size, inches.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2
Complete .30c.	30c.	40c.	\$1.25	\$2.00	
Female half .20c.	20c.	25c.	.75	1.30	

HOSE COUPLING

Fig. 1284.



BRASS HOSE COUPLINGS, FIG. 1284.

Fig. 1284 is a special Brass Hose Coupling, made with double length nipples, with heavy ribs, of sufficient length to use two hose bands if necessary. Especially adapted for use with Power Spray Pumps. Made in $\frac{1}{2}$ -in. size. Price, each..... 60c.

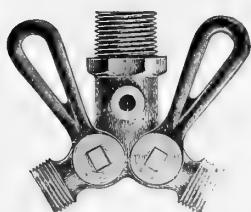
SHERMAN'S BRASS HOSE CLAMPS

Fig. 1272,
Brass Hose
Clamps,

each, $\frac{1}{2}$ -in., 8c.;
 $\frac{3}{4}$ -in., 8c.; 1-in.,
15c.; 1 $\frac{1}{4}$ -inch,
1 $\frac{1}{2}$ -inch,
2-in....

DOUBLE CUT-OFF

Double Cut-off, Fig. 1304.



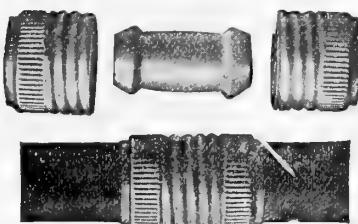
It is much simpler than two single cut-off valves, and is fitted for $\frac{3}{4}$ or $\frac{1}{2}$ -in. hose couplings on the discharge ends, and 1-in. pipe thread on the inlet. No cap is needed, as either line of hose may be shut off without affecting the other, or both may be turned on, or both shut off. No spray pump should be used without one.

Price, each..... \$2.50

HOSE WASHERS.

Rubber, $\frac{1}{2}$ -in. or $\frac{3}{4}$ -in., ea., 2c.; doz \$.10
Leather, $\frac{1}{2}$ -in. or $\frac{3}{4}$ -in., ea., 3c.; doz .15
Packing for repacking spray pump cylinders, per pound..... 2.00

THE SURE SHUT HOSE MENDER



The simplest, strongest and best device on the market for repairing leaky hose. No tools whatever are necessary to attach it. Can be put on with the hands alone in less than a minute. Makes an absolutely watertight connection. Is made entirely of brass, will not rust. Will fit any make of hose. Can be detached and used over and over again. Made for $\frac{1}{2}$ -inch and $\frac{3}{4}$ -inch hose.
Price, each set \$.15
Price, dozen sets 1.75

EXTENSION SPRAY RODS



Fig. 1536.

FIG. 1535

FIG. 480

COOPER HOSE MENDER



No clamps necessary. Impossible to pull out of hose. Each, 10c.; dozen..... \$1.00

Fig. 1346.

RELIEF VALVES



FOR POWER SPRAY AND OTHER POWER PUMPS.

$\frac{3}{4}$ -inch \$5.00
1-inch 6.00

STOP-COCK



This stop-cock is made with shank for $\frac{1}{2}$ -in. hose, with $\frac{1}{2}$ -in. pipe thread to fit any nozzle or spray rod. It is generally used with small hand

and knapsack pumps.

Price 75c.

ADJUSTABLE SWIVEL ELBOW



is especially recommended when spraying for the Codling Moth. Can adjust the nozzle to any angle with this elbow. Price..... \$1.25

Fig. 480—8-foot pipe extension, with couplings \$.65

Fig. 1534—8-foot pipe extension, with stop-cock 1.65

Fig. 1536—8-foot bamboo extension, without shut-off 3.25

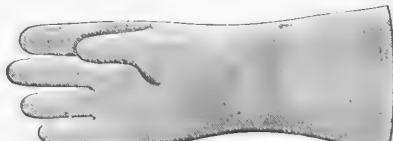
Fig. 1536—8-foot bamboo extension, with lever shut-off cock 4.00

Fig. 1536—10-foot bamboo extension, without shut-off 3.75

Fig. 1536—10-foot bamboo extension, with lever shut-off cock 4.50

The Bamboo Extension, as illustrated by Fig. 1533, is made of selected bamboo, 8 ft., 10 ft. in length, through which is placed a special brass tube of 5-16 inch inside diameter; the shut-off lever and male end are attached to the brass tube by heavy threads (no solder) and has wide shield at top to prevent running down the pole.

RUBBER GLOVES

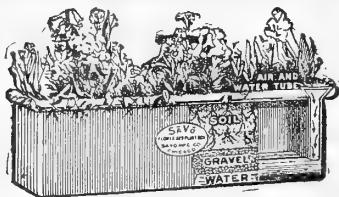


EXTRA HEAVY, ALL-RUBBER, SEAMLESS GLOVES.

Just the thing to handle the poisonous chemicals used in the different spraying mixtures. Can be worn with canvas gloves inside or outside.

Price..... \$3.00
Parcel post weight of article on this page 1 pound.

**THE SAVO STEEL
All-Year-Round Flower Box**



Patented Jan. 23, 1917

**Self-Watering and Sub-Irrigating
FOR
Windows, Porches, Sun Parlors, etc.
Perfect AIR Circulation and Drainage
Leak Proof and Rust Proof**

**MOST EFFICIENT, DURABLE, ARTISTIC
Six sizes. Beautifully finished**

Fill with water only once a week. Move Savo Boxes indoors or out and you can have beautiful Flowers and Plants continually for many years.

AN ALL - YEAR - ROUND - GARDEN

**STANDARD STOCK SIZES AND PRICE
LIST.**

Model A—6½ in. high, 6½ in. wide, 23 in. long.....	\$3.00
Model B—8 in. high, 9½ in. wide, 29 in. long.....	3.50
Model C—8 in. high, 9½ in. wide, 35 in. long.....	4.00
Model D—8 in. high, 9½ in. wide, 41 in. long.....	4.50
Model E—8 in. high, 12 in. wide, 12 in. long.....	3.00
Model F—12 in. high, 12 in. wide, 12 in. long.....	3.50

These are outside measurements, including the ¾-inch roll rim.

Beautifully finished in Aluminum.

Only water once a week. No surface watering.

U. S. PLANT TUBS

These plant tubs are made from best grade cypress, with strong iron handles and feet. Just the thing for Palms, Rubber Plants, etc. Painted Green with Black Trimmings.



No.	Diameter.	Depth.	Price.
1.....	12	10 ¾	\$2.75
2.....	13	12 ¾	3.50
3.....	14 ½	14 ¾	4.35
3 ½.....	16 ½	15 ¾	5.75
4.....	19 ¾	16 ¾	6.25
5.....	22 ¾	18 ½	8.00

HOSE NOZZLES

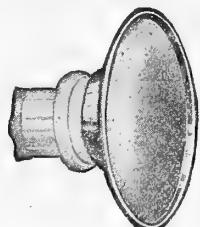


This nozzle is made from solid brass and is adjustable for all kinds of spraying, from solid stream to the finest spray, or can be shut off entirely.

¾-in. Justrite Nozzle .....	.90
1-in. Justrite Nozzle	1.50
¾-in. Stub Hose Nozzle.....	.90
Parcel Post Weight 1 Pound.	

The Fountain Shower

A Hose Nozzle with the "Mist-Like Spray"



This shower Sprinkler is the best thing for attaching to the hose to be used like a watering pot. It gives a fine gentle shower and does not injure the plants as a heavy stream might do.

P. P. Weight 1 lb.
Price 25c.



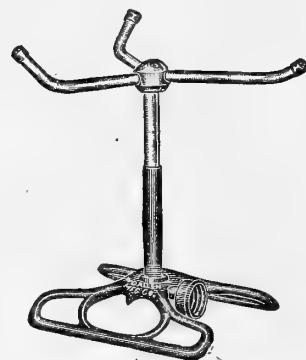
**C. B. G.
SPRINK-
LER**

No. 54.

This is the cheapest and most effective sprinkler made. The distribution of water is perfect.

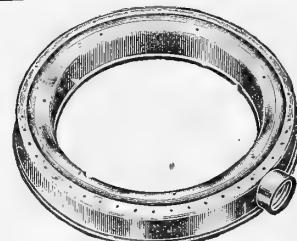
Parcel Post Weight, 1 Pound.
Price 65c.

**REVOLVING
SPRINKLER**



The Sprinklers are compactly and strongly made, with phosphor-bronze bearing.

Eureka Sprinkler, 12 in. high..... \$2.25
Newport Sprinkler, 24 in. high..... 4.50
Biltmore Sprinkler, 36 in. high..... 5.00
Parcel Post Weight, 5 Pounds.



**FOUNTAIN
SPRINRLER**

MADE OF HEAVY BRASS.

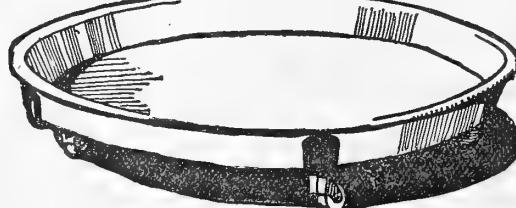
Easily moved over the lawn without turning off the water. The mist-like spray is a veritable "thing of beauty."

Parcel Post Weight, 2 Pounds.
Price \$1.00

INDURATED FIBRE-WARE

A light, strong material, impervious to moisture, moulded into one piece, seamless and rust-proof. Finished in a rich mahogany color.

**FIBRE-WARE
ROLLING STAND**



Fibre-ware Rolling Stands are mounted upon ball-bearing casters and furnish an easy and ready means of moving heavy plants in permanent or temporary locations.

Outside Diameter.	Will take tub diameter at bottom.	Price, Each.
16 inches.....	13 inches.....	\$2.50
18 inches.....	15 inches.....	3.00
20 inches.....	17 inches.....	3.75
22 inches.....	20 inches.....	4.50

**FIBRE
FLOWER POT
SAUCERS**

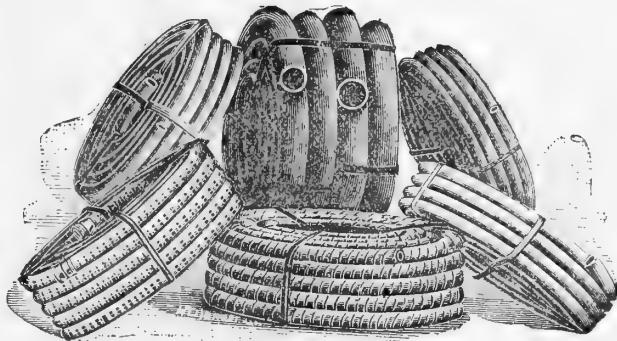


Cleaner and More Durable Than
Pottery.

Diameter.	Price, Each
6 in.....	\$.50
7 in.....	.55
8 in.....	.60
10 in.....	.70
12 in.....	.80

RUBBER HOSE

GARDEN HOSE



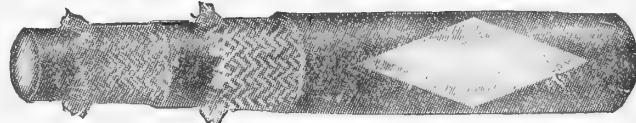
Our brands of Hose are all made up to our order, experience having taught us that High-Grade Hose is the cheaper. Low-Grade Hose will not give satisfaction.

These brands of Hose are guaranteed to be as represented, and have given our trade satisfaction for years.

Per Ft.

ORIOLE. —5-ply, $\frac{3}{4}$ -in., in 25 and 50-foot lengths (75 lbs. pressure).....	\$0.18
GRIFFITH & TURNER CO.'S EXTRA. —3-ply, $\frac{3}{4}$ -in., in 25 and 50-foot lengths (80 pounds pressure).....	.21
GRIFFITH. —6-ply, $\frac{3}{4}$ -in., in 25 and 50-foot lengths (125 pounds pressure).....	.22

MOULDED GARDEN HOSE



GRITCO CONTINUOUS LENGTH SEAMLESS HOSE

The construction of this Hose is entirely different from regular Hose. Over a seamless tube of high-grade rubber is braided two plies of tightly twisted cotton yarn.

Between each ply is placed a distinct layer of high-grade rubber.

The Hose is protected by a cover made of rubber specially compounded. It is vulcanized in patented moulds under very high pressure.

This Hose is manufactured in continuous lengths up to five hundred feet.

$\frac{3}{4}$ -inch, per ft., not coupled, 24c.; coupled, 25c.

HOSE FOR SPRAY PUMPS

We do not recommend a cheap Hose for spray work. Large sprayers handling a high pressure should use our No. 2, $\frac{1}{2}$ -inch spray hose. This Hose is made especially for this work. It is extra strong and is wire wound, adding to its strength, and insuring long life, as the wire also protects it from rough usage.

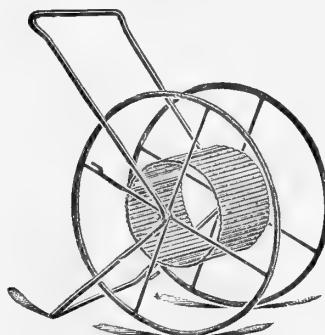
The No. 1, $\frac{1}{2}$ -inch Spray Hose will be found satisfactory for the various hand pumps.

Spray hose is made especially for spray pumps, being so constructed that spraying solutions have the least possible effect on them.

Per Foot.

$\frac{1}{2}$ -inch Oriole	\$0.17
$\frac{1}{2}$ -inch Spray No. 1 .....	.20
$\frac{1}{2}$ -inch Spray No. 2, wire-wound .....	.25
1-inch 3-ply Hose .....	.30
1-inch Hard Rubber Suction Hose .....	.35
2-inch Wire-Lined Suction .....	.50
$\frac{1}{2}$ -inch Hose comes in 10, 15, 25, 30 and 50-foot lengths. We cannot cut other lengths. 2-inch Hose comes in 5, 10 and 20-foot lengths.	

HOSE REELS

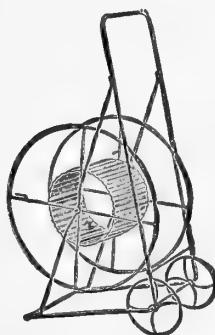


No. 10 All-Steel Reel.

Diameter of wheels...22 in.
Diameter of drum..... 9 in.
Width between wheel..10 in.
Length of handle.....28 in.
Capacity, 100 ft $\frac{3}{4}$ -in. hose.
Weight about 17 lbs.

The large wheels roll easily over rough or soft ground. Nothing to get out of order.

Rigid—Durable—Attractive.
Price \$2.75

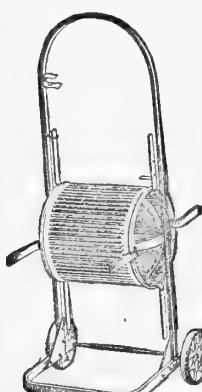


No. 200 All-Steel Reel.

Diameter of wheels... 7 in.
Diameter of reel.....20 in.
Diameter of drum..... 9 in.
Width of drum.....10 in.
Height of handle.....39 in.
Capacity, 100 ft $\frac{3}{4}$ -in. hose.
Weight about 25 lbs.

The weight of the hose is on the wheels, not on the hands, when being moved about. This reel is light, yet rigid and durable.

Price \$4.00

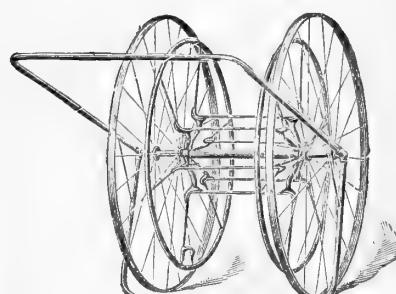


"Victor."

"VICTOR" REEL is constructed with channel steel frame; strong, cast-iron wheels; solid steel reel arms and 9-inch drum of heavy corrugated steel.

Weight, 12½ lbs., bundled for shipping. Capacity, 100 ft. of $\frac{3}{4}$ -inch rubber hose.

Price \$2.25



PARK REEL No. 21.

A tubular iron reel and frame mounted on steel wheels, tires 1½ inches.

Height of wheels..... 28 in.
Outside width over all..... 26 in.
Shipping weight 45 lb.
Capacity, $\frac{3}{4}$ -inch hose.....200 ft.
Capacity, 1-inch hose.....100 ft.

PRICE \$11.00

The No. 20 Tubular—Wheels, 24 inches; weight, 20 pounds. Capacity, 150 feet $\frac{3}{4}$ -inch Hose.

Price \$5.00

WATER TRUCKS AND COMBINATIONS WITH STEEL WHEELS

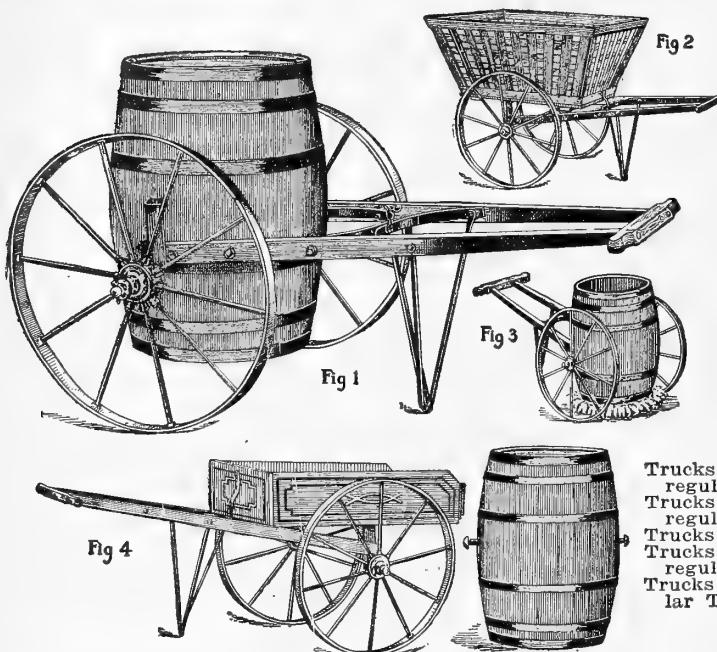


Fig. 1 represents our Barrel Cart, to which can be attached any of our Barrel Spray Pumps. This is a convenient combination, and may be found useful in various ways, such as watering gardens, spraying fruit trees, etc.

Fig. 2 shows Truck with Leaf Rack Attachment.
Fig. 3 shows Truck and Barrel with Sprinkler Attachment.

Fig. 4 shows Truck and Box, with Barrel Detached.
Dimensions: Height of Wheels, 2 ft. 9 in.; Distance between Trunnions, 2 ft. 2 1/2 in.; Width Tire, Steel, 1 1/2 in., 2 1/2 in., 3 1/2 in.; Wood, 1 1/2 in., 2 1/2 in., 4 inches.

Box Inside Measure: Width, 22 1/2 in.; Length, 24 in.; Height, 8 1/2 in. Box has tail door.

Prices.

	List Price.	Special Price.
Water Truck, with Regular 1 1/2-in. Tire Steel Wheels	\$19.20	\$12.75
Water Truck and Barrel	29.20	17.75
Water Truck and Box	25.70	16.75
Water Truck, Barrel and Box	35.70	21.75
Sprinkling Attachment	8.00	5.00
Leaf Rack	12.50	8.25
Barrel	11.00	6.00
Box	6.50	4.00
Trunnions, per pair	1.36	.90
Trucks with 2 1/2-in. Tire Steel Wheels, add to regular Tire Truck	1.65	1.10
Trucks with 3 1/2-in. Tire Steel Wheels, add to regular Tire Truck	3.20	2.10
Trucks with 1 1/2-in. Tire Wood Wheels, add to regular Tire Truck	19.20	12.75
Trucks with 2 1/2-in. Tire Wood Wheels, add to regular Tire Truck	1.65	1.10
Trucks with 3 1/2-in. Tire Wood Wheels, add to regular Tire Truck	3.20	2.10

Extra Truck Wheels.

	List Price.	Special Price.
1 1/2-in. Tire Wood or Steel Wheels, each	\$4.50	\$3.00
2 1/2-in. Tire Wood or Steel Wheels, each	5.00	3.40
3 1/2-in. Tire Steel Wheels, each	5.54	3.70
3 1/2-in. Tire Wood Wheels, each	5.54	3.70
Axles, with Trunnion Holders, each	4.00	2.50

WHEELBARROW LEAF-RACK ATTACHMENT



Can be attached to any style or size wheelbarrow with removable sides. Most convenient for gathering leaves, cut grass and rubbish. One of these attachments should be in use on every small suburban place, as well as the larger estates. Capacity, 10 bushels; made of galvanized wire, bolted to a wooden base. List Price, \$10.00; Our Special Price, \$6.00

BALTIMORE LAWN AND STREET SPRINKLER

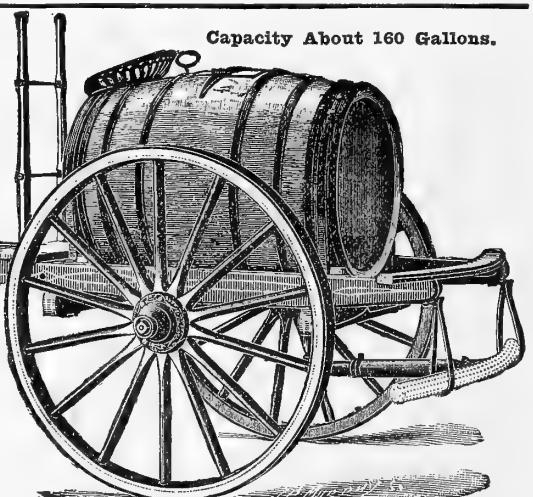
LIST, \$200.00
RETAIL, \$120.00



Parks, Cemeteries and Country Places having a considerable amount of Roadway, Walks and Lawns will find that the Baltimore Lawn and Street Sprinkler will greatly improve their condition. For this purpose our Sprinkler will meet every requirement. It may also be used for carrying water and other purposes.

It is a substantial and well-made Sprinkler in every respect. Driver can operate it from the seat.

Capacity About 160 Gallons.



BALTIMORE PUSH CART

For the merchant, printer, farmer, etc., to have one of these carts on his premises it will be found a most useful vehicle. There are so many purposes for which they can be employed—carrying bundles, printers' forms, farmers' tools and light implements, etc. It is never out of place, and always ready to pick up at short notice. They are nicely finished; higher wheels, better ironed and altogether superior to anything of its kind on the market. There is now an immense demand for these carts, but notwithstanding we have placed the price low.

Retail.....\$15.25 List.....\$23.00
Extra wheels, each—List, \$5.00. Retail, \$3.10.

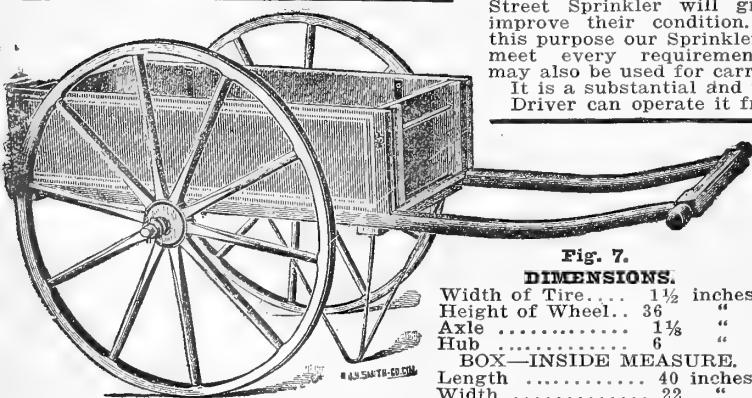


Fig. 7.

DIMENSIONS.

Width of Tire	1 1/2	inches.
Height of Wheel	36	"
Axle	1 1/8	"
Hub	6	"
BOX—INSIDE MEASURE.		
Length	40	inches.
Width	22	"
Depth	10	"

MONITOR CART No. 53



The Monitor Construction. The frames of the bodies are made of special carbon steel, riveted together with best Norway rivets. It is very light and strong, with durable first quality basswood box inside, and have oil-tempered half elliptical springs. The leg being V-shaped and pivoted at its two extremities to the bodies, forms an effective handle brace.

Lightness. We claim for the MONITOR Hand Cart extreme lightness. These carts weigh about one-third as much as the old-fashioned wooden cart.

They are especially adapted to the uses of manufacturing or mercantile business, and are indispensable to grocers, bakers, laundries, printers, painters, plumbers, paper-hangers, carpenters, tinsmiths, gardeners, and general family uses.

No. 53	Box 29 x 44 x 10 inches	
	30-inch wheels. 3/16-inch spokes.	Weight, 110 lbs.

OUR SPECIAL PRICE.....\$22.50

MONITOR CART No. 23

The great convenience of a three-wheel cart will be appreciated when you realize that the weight is all upon the ground and none on the party pushing it. This cart is especially designed for convenience. It is nicely made, the body is finished in green nicely striped and varnished, the gear is finished in red.

It is just the thing for printers, grocery stores, factories, and in fact its many uses would be hard to enumerate.

The frame of bodies are made of special carbon steel, riveted together, the bodies are large, giving ample room for a large load. In the construction of Monitor carts we use the very best material, making this the **lightest** and **strongest** cart obtainable.

No. 23 MONITOR

Box 23 x 41 1/2 x 10 inches.	Capacity, 600 lbs.
30-inch wheels. 3/16-inch spokes.	Weight, 103 lbs.

OUR SPECIAL PRICE.....\$18.00



MERIMAC CART No. 132

This cart is built especially for country use, where there are not any pavements, and a three-wheel cart is not necessary. In the construction it is just as high-grade as other carts listed and will be found a very useful addition on every place. The running gear is made of steel, the wheels are of the bicycle pattern, steel spokes, electrically welded tires and malleable hub, this construction gives the greatest strength.

The springs are so constructed and arranged as to carry the load in a way that makes the cart easy to push.

Body is finished in green, nicely striped and varnished. The gear is finished in red.

No. 132 MERIMAC

Box 23 x 41 1/2 x 9 1/2 inches.	Capacity, 250 lbs.
26-inch wheels.	Weight, 66 lbs.

OUR SPECIAL PRICE.....\$12.50

HANDY LOW PLATFORM CART

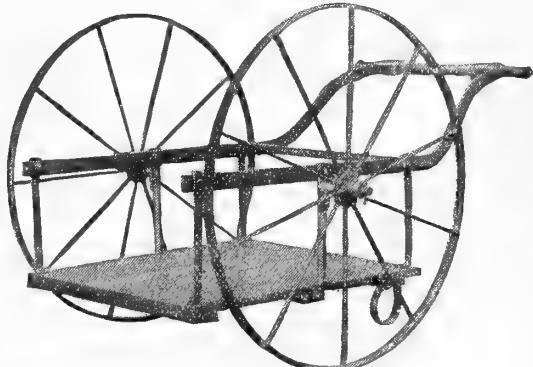
A handy cart for Farm and Dairy use. The low-down platform makes loading and unloading easy. It will carry five milk cans, water barrel or farm produce in sacks. The parallel steel bands on the sides and wooden back rest make possible a wider range of use and permits carrying small packages of merchandise.

SIZE OF PLATFORM, 27 x 30 INCHES.

Woodwork painted drab, wheels yellow, iron work red, hand striped and varnished.

Crated for Shipment. Shipping Weight, 100 lbs.

OUR SPECIAL PRICE.....\$17.00



It will pay you to use this insecticide in green-houses and on potted plants.

This insecticide destroys insects in poultry-houses and homes.

LEMON OIL COMPANY'S STANDARD INSECTICIDE

Soluble

INSECTICIDE in Water

NO DISAGREEABLE ODOR.

Guaranteed by the Lemon Oil Company under the Insecticide Act of 1910. Serial No. 321.

NO POISON

THIS INSECTICIDE

is death to pests—is safe to plants—is harmless to user—is low in price—is free from disagreeable odor.

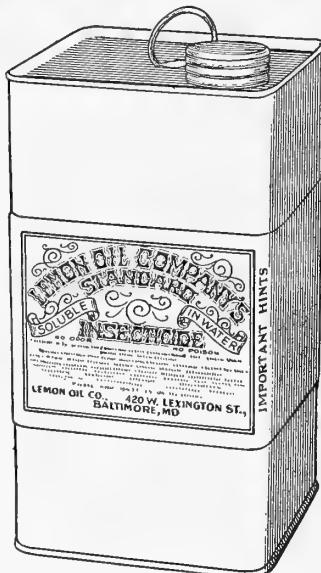
We recommend Lemon Oil Co.'s Standard Insecticide. It is used by the most prominent florists and seedsmen to destroy Scale, Mealy Bug, Rust, Aphis, Caterpillar, etc., on Palms, Rose Bushes, Rubber Plants, Ferns, etc. It leaves no disagreeable odor on blooms or foliage—advantages over the vile-smelling soaps and powders—especially for indoor use. Being Poisonless, it is not dangerous to use.

This will be found an excellent wash for dogs and other animals; it relieves Mange, destroys Lice and other insects, and gives the coat a beautiful glossy appearance. Contains no poison to injure the animal, and being liquid, gets through the hair to the hide.

It will destroy Lice and other insects in poultry houses.

It will also kill Roaches, Ants and other insects that infest houses.

½ Pint	\$.30	1 Gallon	\$ 2.50
1 Pint .....	.50	5 Gallons	10.50
1 Quart .....	.90	10 Gallons	20.00
½ Gallon	1.50		Directions on every Can.



PRICES:

POISON

KIL-WEED

NOT TO BE USED ON LAWNS

POISON

Formaldehyde, 40% Solution IT IS VALUABLE AS A GERMICIDE, FUNGICIDE AND DISINFECTANT.

Soil Treatment—Sprinkle soil in the proportion of one gallon to one square foot with a solution of 2 to 3 pints Formaldehyde to 50 gallons of water. Do not plant for two weeks.

Household and other purposes—To disinfect clothing, soak it 24 hours in a solution of two pints Formaldehyde and 5 gallons of water. To disinfect homes, stables, chicken-houses, etc., scrub with solution of one pint of Formaldehyde to two gallons of water.

Prices: ¼-pt. bottles, 30c.; ½-pt. bottles, 50c.; 1-pt. bottles, 75c.; 1-gal. cans, \$4.00.

A SCIENTIFIC WEED DESTROYER. FREE FROM ODOR.
By Analysis it Has Been Found There is no Stronger Weed Killer on the Market.

An unsurpassed preparation for the removal of grass, weeds, vines and bushes from paths, roadways, gutters, streets and any other place from which it is desired to remove any and all vegetable growths, thus destroying the breeding ground for mosquitoes. The work can be done in a speedy, thorough, economical and easy manner. The material has no bad effect on the ground, neither does it injure or discolor the brick, stone or marble curbing.

No more digging and disfiguring of paths and roadways. Saves expense of several men. **KIL-WEED** not only kills weeds, but destroys seed germs and roots of plants. Can be used with an ordinary sprinkling can. **One gallon KIL-WEED will make 30 to 35 gallons treating liquid when mixed with water.** One man with a sprinkling can in one hour can do as much or more than six men could in one-half day, and do the work better.

Judgment should be exercised in using **KIL-WEED**, as it is impossible to give full directions to suit every case. If the weeds are large and strong the solution should be made stronger than for ordinary grass and weeds. They should be cut down so that the solution can reach the roots.

1-Quart Can	\$.40	5-Gallon Can	\$5.00
½-Gallon Can .....	.75	10-Gallon Can	9.50
1-Gallon Can	1.25	1 Barrel, per gallon.....	175

**FULL DIRECTIONS WITH EVERY CONTAINER.
WRITE FOR SPECIAL CIRCULAR.**

Bluestone (or Copper Sulphate)

The Bluestone market fluctuates, and we are therefore unable to put prices in catalogue. Will name best possible prices on application.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

LIME-SULPHUR SOLUTION

The universally accepted spray material for dormant use is lime sulphur solution. Chemically made lime sulphur solution has now almost entirely supplanted the home-made solution because it is better.

This material combines the great fungicidal properties of sulphur with the scale remedy, and is specially recommended for peach and plum trees which need the combined treatment in the fall and spring. In spraying this material care should be exercised to avoid getting it in the eyes, and gloves should be worn to protect the hands.

Lime-Sulphur Solution is used both as an insecticide and a fungicide. As an insecticide it is used principally against scale insects, especially the San Jose Scale. For scale insects it is applied while the trees are dormant and is diluted with 8 or 9 parts of water. As a fungicide it is used chiefly for the control of apple scab, 1½ gallons to 50 gallons of water. Lime-Sulphur may be used in combination with arsenate of lead and tobacco extracts. Paris Green should not be used with Lime-Sulphur.

PRICES:

1-qt. Cans	\$.40	10-gal. Cans	\$5.50
½-gal. Cans . . . . .	.65	½-bbl., per gallon . . . . .	.25
1-gal. Cans	1.00	1-bbl., per gallon . . . . .	.22
5-gal. Cans	3.75		

Special Price in Larger Quantities.

B. T. S.

This is a trade name or designation for a definite chemical combination of sulphur with the mineral barium, instead of the mineral lime. In this combination practically all the sulphur is available as an insecticide and fungicide in its most active form.

By the use of barium in the place of lime it is not only possible to obtain the highest efficiency of the sulphur, but also to obtain a dry crystalline product that reduces the bulk in shipping about 75%, thus saving freight and reducing losses from leakage and waste.

Results of Spraying with B. T. S.—Experiments prove it to be equal to lime-sulphur solution, both as an insecticide and as a fungicide.

Directions. For dormant spraying to control scale, etc., use 12 pounds to 50 gallons of water. For growing period spraying on apples to control scab, etc., use 1½ to 2 pounds to 50 gallons of water.

5-lb. package	\$1.30	50-lb. package	\$8.00
10-lb. package	2.50	100-lb. package	14.00
25-lb. package	5.00	300-lb. package	39.00

HAMMOND SLUG SHOT

A non-poisonous powder; it requires no further mixing or preparation; easily applied; not injurious or dangerous to animals, the person applying it or fruits and vegetables treated; destroys potato bugs and beetles, green and black fly, slugs, worms, caterpillars, etc. Ten to forty pounds is sufficient for an acre.

5-lb. package	50c.
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HAMMOND'S GRAPE DUST

For Mildew and Blight, 5 lbs.	75c.
---------------------------------------	------

FISH OIL SOAP WITH TOBACCO

Apply for green-fly or aphis, one-half ounce to gallon of water; one ounce for mealy bugs and two ounces for most greenhouse scale. Outside purposes, double the strength for same kind of pest.

½ lb.	\$0.15	5 lbs.	\$1.15
1 lb. . . . .	.25	10 lbs.	2.10
2 lbs. . . . .	.50	25 lbs.	4.50
100 lbs.			\$15.00

FLOUR OF SULPHUR

Pound	15c.	lb.	25 lbs.	9c.	lb.
5 lbs.	12c.	lb.	50 lbs.	8c.	lb.
10 lbs.	10c.	lb.	100 lbs.	7½c.	lb.

Barrels (250 lbs.) \$ lb.

Prices subject to change without notice.

PURE WHITE HELLEBORE

The cheapest and best preparation for destroying rose slugs, currant worms, etc. One-quarter pound, 25c.; half-pound, 45c.; pound, 80c.

Persian Insect Powder or Buhach

Price: ¼-pound, 30c. Pound \$1.00

DRY—Blow on with a bellows or gun.

SOLUTION—Dissolve one ounce to three gallons of water, and apply with syringe or pump.

KEROSENE EMULSION (Liquid)

Kerosene Emulsion is an efficient contact insecticide, especially valuable against plant lice and similar soft-bodied insects. It may be used for practically all the sucking insects, where it is necessary to use a contact killer. It is especially effective for Wooly Aphis on apples. For this spraying, considerable pressure on the pump should be maintained. For the root-infesting form, soak the ground around the trees after first removing the soil to the depth of two or three inches. After having applied the solution, replace the dirt.

Directions—One part Kerosene Emulsion to from four to fifteen parts of water.

1 quart	\$.45
1 gallon	1.15
5 gallons	4.50

INSECTICIDES CANNOT BE SENT BY PARCEL POST

INSECTICIDES—Continued

ARSENATE OF LEAD

Arsenate of Lead is an arsenical poison for use against insects that chew and for such insects as the fruit-flies that lap and suck up sweetened liquids. It has also been shown to have considerable fungicidal value both when used alone or used in combination with lime-sulphur.

Arsenate of Lead is prepared in two forms: paste and powder. When the powdered form is used, only half the quantity by weight is required. Both the paste and powdered form can be used in liquid sprays. The powdered form is also used for dusting.

The principal insects for which Arsenate of Lead is used are: apple-maggot, brown-tail moth, bud-moth, cankerworm, codling moth, fruit-tree leaf-roller, gipsy moth, tent caterpillar, pear slug, curculio, etc. Directions: 2 to 3 lbs. paste to 50 gallons of water.

Paste Form.

1-lb. pkg., per lb.....	45c.	1-lb. pkg., per lb.....	65c.
5-lb. pkg., per lb.....	35c.	5-lb. pkg., per lb.....	55c.
10-lb. pkg., per lb.....	30c.	10-lb. pkg., per lb.....	50c.
25-lb. pkg., per lb.....	26c.	25-lb. pkg., per lb.....	45c.
50-lb. pkg., per lb.....	20c.	50-lb. pkg., per lb.....	39c.
100-lb. pkg., per lb.....	19c.	100-lb. pkg., per lb.....	36c.

Powdered Form.

1-lb. pkg., per lb.....	45c.	1-lb. pkg., per lb.....	65c.
5-lb. pkg., per lb.....	35c.	5-lb. pkg., per lb.....	55c.
10-lb. pkg., per lb.....	30c.	10-lb. pkg., per lb.....	50c.
25-lb. pkg., per lb.....	26c.	25-lb. pkg., per lb.....	45c.
50-lb. pkg., per lb.....	20c.	50-lb. pkg., per lb.....	39c.
100-lb. pkg., per lb.....	19c.	100-lb. pkg., per lb.....	36c.

ARSENITE OF ZINC (Powder)

Arsenite of Zinc.—This is a combination of arsenic with zinc to form a quick acting, adhesive insecticide for use on potatoes and some other truck crops. It is much more adhesive and less caustic than Paris Green and kills quicker than Arsenate of Lead.

The great advantages of Arsenite of Zinc are:

First—It kill's the bugs so quickly they do not have a chance to cause serious injury to vines.

Second—It sticks to the vines so that it is not necessary to respray after every rain.

Third—It can be used at sufficient strength to insure results without burning or injuring the vines.

DIRECTIONS:

First—Apply as soon as eggs begin to hatch. For spraying use at rate of two pounds to the acre—this may require one or two pounds or more of the powder to fifty gallons of water depending upon the quantity of liquid distributed per acre by the spraying outfit. The spray tank should be partly filled with water and the powder sifted in slowly while the agitator is running.

Second—Make second application ten days to two weeks later in order to cover new growth.

Third—Make third application ten days to two weeks after second.

1-lb. pkg., per lb.....	65c.	25-lb. pkg., per lb.....	45c.
5-lb. pkg., per lb.....	55c.	50-lb. pkg., per lb.....	40c.
10-lb. pkg., per lb.....	50c.	100-lb. pkg., per lb.....	38c.

ATOMIC SULPHUR

This is pure sulphur treated by a special process to convert it into a very finely divided state in the form of paste, so it can be readily diluted with water and applied as a spray to coat fruit and foliage with a thin film of sulphur to prevent germination of fungous spores.

It is recommended for the control of scab on peaches, brown rot on peaches, plums and cherries and cedar rust on apples. Directions: 5 to 7 lbs. to 50 gallons of water.

1-lb. pkg., per lb.....	35c.	50-lb. pkg., per lb.....	14c.
5-lb. pkg., per lb.....	28c.	100-lb. pkg., per lb.....	12c.
10-lb. pkg., per lb.....	22c.	Barrels, 300 lbs., per lb. 11½c.	
25-lb. pkg., per lb.....	18c.	Barrels, 500 lbs., per lb. 11c.	

INSECTICIDES CANNOT BE SENT BY PARCEL POST

ALL PRICES IN CATALOG SUBJECT TO CHANGE
WITHOUT NOTICE.

BORDEAUX ARSENATE OF LEAD

This is a combination of Bordeaux Mixture and Arsenate of Lead, and is especially recommended for all spraying operations where it is desired to combine an insecticide for eating insects and a fungicide treatment in one spraying.

This combination is specially recommended where it is desired to include the Bordeaux treatment with the spraying for codling moth, also used for scab, canker-worm, case-bearer, bud-moth and for general use on garden vegetables and grape vines to kill leaf-eating insects and control fungous diseases. Directions: 6 to 8 pounds to 50 gallons water.

Paste Form.

1-lb. pkg., per lb.....	60c.	1-lb. pkg., per lb.....	68c.
5-lb. pkg., per lb.....	50c.	5-lb. pkg., per lb.....	56c.
10-lb. pkg., per lb.....	43c.	10-lb. pkg., per lb.....	52c.
25-lb. pkg., per lb.....	37c.	25-lb. pkg., per lb.....	46c.
50-lb. pkg., per lb.....	31c.	50-lb. pkg., per lb.....	40c.
100-lb. pkg., per lb.....	30c.	100-lb. pkg., per lb.....	39c.
300-lb. pkg., per lb.....	29½c.		

Powdered Form.

1-lb. pkg., per lb.....	60c.	1-lb. pkg., per lb.....	68c.
5-lb. pkg., per lb.....	50c.	5-lb. pkg., per lb.....	56c.
10-lb. pkg., per lb.....	43c.	10-lb. pkg., per lb.....	52c.
25-lb. pkg., per lb.....	39c.	25-lb. pkg., per lb.....	46c.
50-lb. pkg., per lb.....	31c.	50-lb. pkg., per lb.....	40c.
100-lb. pkg., per lb.....	30c.	100-lb. pkg., per lb.....	39c.
300-lb. pkg., per lb.....	29½c.		

BORDEAUX ARSENITE OF ZINC

This is a combination of Bordeaux Mixture and Arsenite of Zinc. This combination makes a quick-acting poison for spraying where an insecticide is needed in combination with a fungicide. It is especially recommended for potato and tomato spraying. It is quick in action, very adhesive and will not burn the plant. Directions: 6 to 8 pounds to 50 gallons of water.

Paste Form.

1-lb. pkg., per lb.....	60c.	1-lb. pkg., per lb.....	68c.
5-lb. pkg., per lb.....	50c.	5-lb. pkg., per lb.....	56c.
10-lb. pkg., per lb.....	43c.	10-lb. pkg., per lb.....	52c.
25-lb. pkg., per lb.....	39c.	25-lb. pkg., per lb.....	46c.
50-lb. pkg., per lb.....	31c.	50-lb. pkg., per lb.....	40c.
100-lb. pkg., per lb.....	30c.	100-lb. pkg., per lb.....	39c.
300-lb. pkg., per lb.....	29½c.		

Powdered Form.

1-lb. pkg., per lb.....	60c.	1-lb. pkg., per lb.....	58c.
5-lb. pkg., per lb.....	55c.	5-lb. pkg., per lb.....	48c.
10-lb. pkg., per lb.....	50c.	10-lb. pkg., per lb.....	43c.
25-lb. pkg., per lb.....	25c.	25-lb. pkg., per lb.....	38c.
50-lb. pkg., per lb.....	19c.	50-lb. pkg., per lb.....	32c.
100-lb. pkg., per lb.....	18c.	100-lb. pkg., per lb.....	31c.
Barrels, 300 lbs., per lb. 17½c.			

BORDEAUX MIXTURE

Bordeaux Mixture is a combination of copper sulphate and lime. It is a standard fungicide and may be used in combination with insecticides. Its use is indispensable in the control of black rot of grapes and the blight of potatoes. It is also used for apple-scab, bitter-rot, cedar rust, leaf spot and downy mildew. Directions: 8 to 10 pounds to 50 gallons of water.

Paste Form.

1-lb. pkg., per lb.....	45c.	1-lb. pkg., per lb.....	58c.
5-lb. pkg., per lb.....	35c.	5-lb. pkg., per lb.....	48c.
10-lb. pkg., per lb.....	30c.	10-lb. pkg., per lb.....	43c.
25-lb. pkg., per lb.....	25c.	25-lb. pkg., per lb.....	38c.
50-lb. pkg., per lb.....	19c.	50-lb. pkg., per lb.....	32c.
100-lb. pkg., per lb.....	18c.	100-lb. pkg., per lb.....	31c.
Barrels, 300 lbs., per lb. 17½c.			

Powdered Form.

1-lb. pkg., per lb.....	58c.	25-lb. pkg., per lb.....	38c.
5-lb. pkg., per lb.....	48c.	50-lb. pkg., per lb.....	32c.
10-lb. pkg., per lb.....	43c.	100-lb. pkg., per lb.....	31c.

CALCIUM ARSENATE

CALCIUM ARSENATE is a dry powder, very finely sub-divided, and of about the same physical texture as Arsenate of Lead Powder. That is, it is smooth and fluffy, and has the excessive fineness necessary to make spraying applications easy, and to give the highest poisoning results.

1-lb. pkg., per lb.....	58c.	25-lb. pkg., per lb.....	38c.
5-lb. pkg., per lb.....	48c.	50-lb. pkg., per lb.....	32c.
10-lb. pkg., per lb.....	43c.	100-lb. pkg., per lb.....	31c.

BORDEAUX MIXTURE AND PARIS GREEN (Powder)

A combination of Bordeaux Mixture and Paris Green. A very quick-acting poison for use on potatoes and tomatoes, as well as other crops. It not only kills the bugs but at the same time defends against blight. It can either be used as a spray or for dusting.

1-lb. package.....	\$.60
5-lb. package.....	2.75
25-lb. package.....	12.50

INSECTICIDES—Continued

“SCALECIDE”

EVERY FRUIT GROWER KNOWS AS THE GREAT SCALE KILLER

but many have not yet learned of
its greater value in the control of

FUNGOUS DISEASES

THE YEARLY APPLICATION OF “SCALECIDE” WITH FUNGICIDE

as a dormant or scale spray, either fall or early spring, will destroy the blight cankers that produce twig or fire blight.

Will stop the progress of collar rot or blight and the wounds will start to heal.

Will control all forms of scale—San Jose Scale, Lecanium or Terrapin Scale, Oyster Shell and Scurfy Scale—Pear Psylla, Leaf Roller, Bud Moth, Case-bearer, and Aphis, as well as fungous troubles controllable by a dormant spray.

In fact, do everything that any other dormant spray or combination of sprays will do, and—**COSTS NO MORE**

1-quart can	\$.65	10-gallon can	\$11.70
1-gallon can	1.60	30-gallon barrel	28.85
5-gallon can	6.80	50-gallon barrel	43.00



“CORONA DRY”

PATENT ARSENATE OF LEAD.

One pound of “Corona Dry” will do the work of three pounds of Paste Arsenate and do it better.

But economy is not everything. Efficiency is more important. What would it mean to you to have a spray mixture of standard strength and be absolutely sure that all of one spraying or of many sprayings was absolutely the same strength? Evaporation, difficulty of perfect mixing, make this impossible with a paste arsenate. You can have a standard efficiency if you use Corona Dry.

REMEMBER, “CORONA DRY” MEANS NO GUESSWORK, BUT A STANDARDIZED SPRAY IN WHICH THE MIXTURE IS ALWAYS THE SAME STRENGTH AND EFFICIENCY.

1-pound package, per pound	\$.65	25-pound package, per pound	\$.45
5-pound package, per pound . . . . .	.55	50-pound package, per pound . . . . .	.39
10-pound package, per pound . . . . .	.50	100-pound package, per pound . . . . .	.36

BUG DEATH



BUG DEATH kills Potato, Squash and Cucumber Bugs, Currant and Tomato Worms, and all bugs and worms that chew the leaves of plants; non-poisonous.

Directions for Applying Dry:

For potato and other vines which require a top application, apply dry with Shaker or Shifter at the rate of 15 to 25 pounds per acre to an application, according to size and conditions of the vines.

1-pound package	\$.20
3-pound package . . . . .	.50
5-pound package . . . . .	.75
12½-pound package	1.50
100 pounds	9.50

PARIS GREEN

¼ pound	\$.20	2-pound package	\$1.15
½ pound . . . . .	.35	5-pound package	2.75
1 pound . . . . .	.60		

“BLACK LEAF 40”

Nicotine Sulphate—40% Nicotine

This is the insecticide that is so highly recommended by Experiment Stations. It destroys Aphis (plant lice), Thrips, Leaf-hoppers on all tree, bush and vine fruits, vegetables, field crops, flowers and shrubs; also Apple Red Bug, Pear Psylla and similar soft-bodied sucking insects—all without injury to foliage.

May be combined with other sprays. Highly concentrated. Soluble in water—easy to mix—does not clog nozzles.

You can not go wrong by ordering “Black Leaf 40” for sucking insects.

PRICES:

1 oz. \$0.25 makes 6 gallons spray
½ lb. 1.00 " 40 to 120 gals. spray
2 lb. 3.25 " 160 to 500 " "
10 lb. 15.75 " 800 to 2500 " "



INSECTICIDES CANNOT BE SENT BY PARCEL POST

INSECTICIDES—Continued



"PYROX"

Kills Insects Prevents Fungus and Diseases

Apple growers swear by PYROX chiefly because they find it brings better fruit and more of it. But there are other advantages that appeal to you, too.

PYROX doesn't wash off—it sticks through the heaviest storm—and you know how often fungus diseases get their start in rainy weather. PYROX is easy to handle—a smooth, creamy paste that's all ready to use when simply mixed with cold water. Goes further because you can spray it in a fine fog, covering the surface with a thin film of complete protection. PYROX saves both labor and money.

PYROX MEANS PRIZE POTATOES

Insure your potato crop against potato bugs, flea beetles and blight by spraying—in time—with PYROX, 1 pound to 5 gallons of water. Then you are safe against pest-losses. You will get bigger potatoes and more of them, too, for PYROX stimulates the plant, giving the leaves that rich, green color which means maximum starch formation. And more starch means more and heavier tubers. Nineteen years of use by this country's best potato growers have proved that, without PYROX, you can't get the greatest returns from your soil, no matter how carefully you prepare and fertilize it. PYROX is the cheapest spray to use, too—the increased yield and quality soon pay for it besides giving you a good profit.

FOR OTHER VEGETABLES.

Growers of tomatoes, sweet potatoes, eggplant, cabbage and other vegetables find that PYROX is as invaluable a profit-builder for them as for potato growers. And for the same reasons. PYROX safeguards the plants against chewing insects, prevents rots and blights and nourishes the leaves—the lungs of the plant. Better crops and better-selling vegetables are the natural result.

1-pound package.....	\$.40
5-pound package.....	1.50
10-pound package.....	2.50
25-pound package.....	5.75
50-pound package.....	10.75
100-pound package.....	20.00
300-pound package.....	57.00

TREE TANGLEFOOT

For protecting trees against climbing insect pests in a simple, economical and effective way, use Tree Tanglefoot—a sticky substance applied directly to the bark of trees. One application remains sticky on the trees three months fully exposed to the weather. Easily applied with a small wooden paddle. One lb. will spread 8 feet long by 5 inches wide, 1-16 inch thick. Will stay on tree three months.

1-lb. Can	\$.50
3-lb. Can	1.45
10-lb. Can	4.50



NICO-FUME

Nico-Fume is a Tobacco Paper insecticide for fumigating greenhouses. Extensively used by prominent florists. Very easy to apply. Prices: 24 sheets, 85c.; 144 sheets, \$4.00, and 288 sheets, \$7.50. Directions on each package.

NIKOTEEN

Is the most powerful known insecticide and will be found more economical and convenient than weak tobacco extracts. Price: Pint cans, \$1.50; 5-pint cans, \$7.00.

VAPORIZING PANS (for above).....	\$.60
IRONs .....	.60
3 PANS, 3 IRONS and 1 HOOK	3.50

APHIS PUNK (Nikoteen)

Especially designed for use in private places and in houses without convenient furnaces for heating irons necessary for vaporizing Nikoteen or Tobacco Extract. It is very effective as an insecticide. The Punk is lighted with a match and allowed to burn, which is done without flaming, at the same time giving off dense white fumes of Nikoteen that kill aphid and thrip very effectively. Per box, 60c.; per 12 boxes, \$6.50.



TOBACCO SOAP

Sulpho-Tobacco Soap is a powerful agent for the destruction of all bugs and insects. One or two applications will rid plants of the pests. Full directions with each cake.

Destroys cabbage, squash- and potato-bugs, currant worms, lice; green-fly, mealy bug, red spider, etc. Sure death to all plant insects indoors and out-of-doors. Of special value for spraying shrubs, fruit trees and vines.

3-oz. cake makes 1½ gallons prepared solution, 10c. Mailed, postpaid, for 13c.
8-oz. cake makes 4 gallons prepared solution, 20c. Mailed, postpaid, for 25c.

10-lb. cake makes 80 gallons prepared solution. By express, \$3.00.

TOBACCO STEMS

Indispensable for fumigating greenhouses and conservatories for the destruction of green and black aphis and other insects.

Dampen thoroughly a few hours before using, place about a half-pound over a handful of shavings in a fumigator, and light. 50-pound bale, 5c. pound.

TOBACCO DUST

For green and black aphis, fleas, beetles, etc. Splendid fertilizer and preventative for insects in the ground and around roots. For insects on plants apply with powder duster or bellows. For worms or grubs in the soil, apply liberally to the surface and rake in, or strew thickly in the drills before planting.

Price: 5 pounds, 30c.; 20 pounds, \$1.00; 100 pounds, \$4.50.



FUMIGATORS

Made from heavy galvanized iron. In demand for fumigating greenhouses with tobacco stems and tobacco dust. If the greenhouse is larger than the capacity of one of the fumigators, one should be placed at either end of the house. Being made from heavy galvanized iron, there is not any danger from fire.

No. 2—Height, 16 inches. For a house 12x40 feet. Price.....\$3.75

No. 3—Height, 20 inches. For a house 15x100 feet. Price..... 4.50

SPRAY CALENDAR

WHAT TO SPRAY	FOR WHAT TO SPRAY	WITH WHAT TO SPRAY	WHEN TO SPRAY			REMARKS AND CAUTION
			First Spraying	Second Spraying	Third Spraying	
Apple	Codling Moth	Arsenates in Bordeaux or arsenate of lead 3 lbs. to 50 gals.	As soon as blossoms fall	7 to 10 days later	30 days later	Later spraying if made should be made with diluted solutions. Use Lime-Sulphur only when trees are dormant. The spray just before blossoms open is very essential for scab. Don't use strong emulsion when trees are in full leaf.
	San Jose Scale	Lime-Sulphur	Late in fall, late in winter or early in spring			
	Scab	Bordeaux Mixture	Just before blossoms open	Within a week after blossoms have dropped.	Same 7 to 10 days later	
	Woolly Aphis	Kerosene Emulsion	When trees are in full leaf	In fall		
Asparagus	Asparagus rust	Bordeaux	After cutting crop	10 days later	10 days later	Repeat 3 to 4 times. Burn rusted brush in the fall.
Bean Cabbage and Cauliflower....	Anthracnose	Bordeaux	On 2 or 3-inch plants	10 days later	After blossoms	1 oz. to 30 gals. of water.
	Cabbage Worm	Pyrethrum	With first appearance of worms	Whenever worms are observed	Same	
Cherry	Rot	Bordeaux	Before blossoming	After blossoming drop on fruit	Two weeks later on fruit	When fruit is large
	Curculio	Arsenate of lead	Before blossoming	As blossoms dry up	One week later	Avoid strong solutions. Do not use other arsenicals than arsenate of lead.
Cucumber	Cucumber Beetle	Arsenate of lead in Bordeaux	Soon as plants appear	Week later	Week after second	Week after fourth
Currant	San Jose Scale	Lime-Sulphur	As with apple	In spring as with apple		Look for worms on under side of leaves first
	Worm	White Hellebore	When worms first appear	Repeat in 3 or 4 days	Repeat as second	
Gooseberry	Mildew	Bordeaux	Before blossoms open	After blossoming	Two weeks later	Follow by two or three sprayings
	Worm	White Hellebore	As on Currants			
Grape	Anthracnose	Bordeaux	Just before buds open	Just before blossoming	Just after fruit has set	Just after fruit has set 7 to 10 days later
	Downy and Powdery Mildew and Rot	Bordeaux	Just before blossoming	Just after fruit has set		
Peach	Leaf Curl	Bordeaux	In fall or spring	As buds are opening	Just after calyx drops	Destroy all mummies. Use only half usual amount of poison
	Rot and Scab	Bordeaux	As buds are swelling	Just after calyxes drop	2 to 3 weeks later	
	Bud Moth	Arsenates in Bordeaux	With opening of buds			
Pear	San Jose Scale	Lime-Sulphur	In late fall or early spring			See Apple
	Scab	Bordeaux	When leaves are half grown	After blossoms drop		
Plum	Codling Moth	Arsenates in Bordeaux	As with Apple	Same as first		Repeat every 7 or 10 days. Destroy all mummies. Jar, gather and destroy curculios and stung plums
	San Jose Scale	Lime-Sulphur	In fall or early spring			
Potato	Rot	Bordeaux	As buds are swelling	Just after calyx drops	3 or 4 weeks later	90 minutes. Arsenate of lead, 3 lbs. to 50 gals. of water for Colorado Beetle alone
	Curculio	Arsenate of lead in Bordeaux	With starting of buds	Just after calyx drops	5 days later	
Quince	San Jose Scale	Lime-Sulphur	In late fall or early spring			In 16 gallons
	Early Blight	Bordeaux	When plants are 6 inches high	Two weeks later	Two weeks later	
Raspberry and Blackberry...	Scab	Soak seed in Arsenites alone or in Bordeaux	Corrosive sublimate	Solution (2 oz.)		Keep spray from leaves on bearing canes
	Colorado Beetle		When beetles or young appear	As for first		
Rose	Fruit and Leaf Spot	Bordeaux	Just before blossoms open	After blossoms drop	Two weeks later	Repeat second 1 week later. Repeat if necessary
	San Jose Scale	Lime-Sulphur	In late fall or early spring			
Strawberry	Anthracnose	Bordeaux	Before leaves open	Bord. on canes 6 inches high		2 or 3 weeks later
	Leaf Spot	Bordeaux	With first appearance of fungus			
Tomato	Slug	Arsenites in Bordeaux	On appearance of slugs	Repeat if necessary		2 or 3 weeks later
	Leaf Spot	Hellebore	On new growth after crop			
	Anthracnose	Bordeaux	Soon after fruit begins to set	Three weeks later	Three weeks later	

HEALTHY HENS AND LOTS OF EGGS

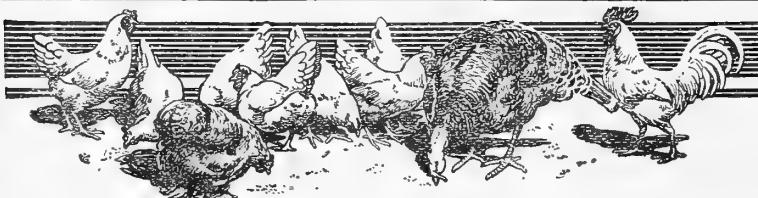


Health begets health. Good layers produce good layers. "Like mother, like chick." These are sound poultry principles. You may expect vigorous, laying, paying birds when you give them.

PRATT'S POULTRY REGULATOR

daily. It contains just those elements needed to keep poultry in perfect health. Both a tonic and digestive. Prevents common poultry ailments. Produces growth, gives increased vitality, and hastens maturity. Makes pullets early and constant layers.

25-lb. pail or bag, \$3.00; 12-lb. pail, \$1.75; packages, 60c., 30c.



Raise Every Livable Chick

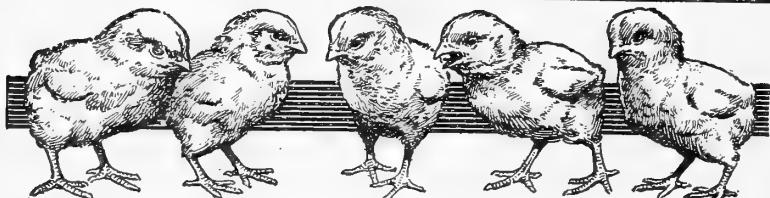
After a good hatch, keep the record good by raising every livable chick. For the first three weeks, and even longer, you will find that the greatest success follows.

PRATT'S BABY CHICK FOOD.

It makes baby chicks live. Makes bone and muscle. Brings along the weak ones. Prevents white diarrhoea, leg weakness, "pasting up" and other digestive troubles. Costs only a cent a chick for three weeks.

Bags—100 lbs., \$8.50; 50 lbs., \$4.50; 14 lbs., \$1.50.

Packages—60c., 30c. and 15c.



A guaranteed remedy for Roup, Colds, Cancer, Catarrh and similar poultry diseases is

PRATT'S ROUP REMEDY

Pills or Powder: \$1.00, 50c., 25c.

Contains remedies which are quickly absorbed, purify the blood and reduce fever. Pills are convenient for individual treatment. Many poultrymen use this remedy the year round as an effective preventive.

PRATT'S CHICKEN CHOLERA REMEDY..... 30c. and 60c. Packages

PRATT'S CONDITION TABLETS..... 30c. and 60c. Packages

PRATT'S GAPE REMEDY..... 30c. and 60c. Packages

PRATT'S SCALY LEG REMEDY..... 30c. and 60c. Boxes

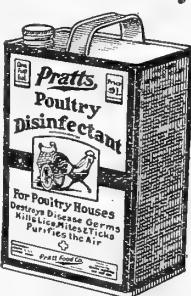
PRATT'S SORE HEAD CHICKEN POX REMEDY..... 30c. and 60c. Packages

PRATT'S BRONCHITIS REMEDY..... 30c. and 60c. Packages

PRATT'S HEAD LICE OINTMENT..... 30c. Boxes

Pratts Poultry Disinfectant

Only \$1.75 a gal.



Three times as powerful as crude carbolic acid. A sure deodorizer, germicide and liquid lice killer. Use it in Roup, Colds and other contagious diseases.

Pratts,

Horse and Cattle Remedies



Intelligent, humane and prudent owners of horses, cows and other live stock realize the value of good tonics, regulators and remedies. For nearly half a century Pratts has been adding to its successful record.

Pratts,

PRATT'S ANIMAL REGULATOR.

Packages:	25-lb. pails	.... \$4.00
30c., 60c. and \$1.20	100-lb. bags	.... 13.35
12-lb. pails	.... 2.50	

PRATT'S CONDITIONER FOR HORSES AND CATTLE.

(Formerly called "Pratts Food for Horses and Cattle.")

7-lb. bags	.... \$ .60	25-lb. bags	.... \$1.70
12-lb. bags	.... .85	100-lb. bags	.... 6.00

PRATT'S COW REMEDY—60c. and \$1.20 pkgs.

PRATT'S BAG OINTMENT—35c. boxes.

PRATT'S DIP AND DISINFECTANT—

1 qt.	.... \$.30	5-gal. cans	.... \$7.50
2 qts.	.... 1.00	10-gal. cans	.... 14.25
1 gal.	.... 1.75	50-gal. bbls.	.... 58.50

PRATT'S COLIC REMEDY—75c. and \$1.50 bottles.

PRATT'S DISTEMPER AND PINK EYE REMEDY—60c. bottles.

PRATT'S HEALING OINTMENT—30c. and 60c. boxes.

PRATT'S HEALING POWDER—30c. boxes.

PRATT'S HEAVE, COUGH AND COLD REMEDY—60c. package.

PRATT'S WORM POWDER—60c. package.

PRATT'S LINIMENT—30c. and 60c. bottles.

PRATT'S GERMATHOL—30c. size.



PRATT'S WHITE DIARRHOEA REMEDY

To protect your chicks from white diarrhoea, the most destructive of all chick diseases, it is only necessary to give

30c. and 60c.

In the drinking water from the first drink. This remedy has saved many dollars worth of chicks to poultry raisers. You can depend on it.



Get rid of lice on your poultry, in nests, dustbaths, incubators and elsewhere in a day's time by using

PRATT'S POWDERED LICE KILLER

30c. and 60c.

Effective, non-poisonous, non-irritating. May be used wherever a powder is suitable. A splendid deodorizer. Will kill lice on horses, cattle, dogs or cats.

EVERY PRATT REMEDY IS GUARANTEED TO SATISFY OR MONEY REFUNDED.

DR. HESS POULTRY AND STOCK PREPARATIONS

PRESCRIPTIONS OF DR. HESS (M. D., D. V. S.)

DR. HESS POULTRY PAN-A-CE-A



makes poultry healthy; makes hens lay; not a stimulant, but a tonic, that tones up the dormant egg organs, brings back the scratch and cackle, and compels each hen to put her share of eggs in the market basket.

It also contains internal antiseptics that counteract disease; insures a healthy, singing poultry flock. Cost but a trifle—a penny's worth enough for 30 hens per day. **1 1/2 lbs., 30c.; 5 lbs., 75c.; 12 lbs., \$1.50; 25-lb. pail, \$3.00.**

GUARANTEED.



DR. HESS ROUP REMEDY

For Roup, Diphtheria, Chicken Pox and all Catarrhal Diseases. It has these distinctive features: It is antiseptic, slightly astringent, non-irritating and healing. **4-oz. cans, 25c.; 10-oz. cans, 50c. GUARANTEED.**



Instant Louse Killer

Kills Lice on Poultry, Horses, Cattle, Sheep Ticks, Bugs on Cucumber, Squash and Melon Vines; Cabbage Worms, Slugs on Rose Bushes, etc. Sold in sifting-top cans—look for the word "Instant" before buying. Price: **1 lb., 30c.; 2 1/2 lbs., 60c. GUARANTEED.**

Dr. Hess Dip and Disinfectant

Non-poisonous and non-irritating and guaranteed to be absolutely uniform in strength at all times. One gallon of Dip makes from 70 to 100 gallons effective solution. Spray it on roosts. Sprinkle it over the runs and in all cracks and crevices. Spray it on cattle and horses. Makes a splendid dip for hogs and sheep. It's a sure parasite and disease germ destroyer. Purifies stables, troughs, sinks, drains. GUARANTEED.

1 Qt., 60c.; 1/2-Gal., \$1.00; 1 Gal., \$1.50.



DR. HESS STOCK TONIC

Formula printed on every package.

Every ingredient indorsed by the U. S. Dispensatory and other high medical authorities. It aids digestion, makes stock healthy, and expels worms. Helps stock convert more ration into milk, flesh, blood and muscle. Every pound backed by the Dr. Hess & Clark unqualified guarantee. Prices: Packages, 30c. and 60c.; 12-lb. pkg., \$1.25; 25-lb. pail, \$2.25; 100 lbs., \$7.50.



Dr. Hess Worm Powder

For Horses, Sheep, Cattle and Hogs. It is highly concentrated, and is an effective vermicide. Dr. Hess' own prescription that proved effective in his practice. Price, **1 1/2 lbs., 50c. GUARANTEED.**



Dr. Hess Healing Powder

The modern Gall Cure. Cures Galls, Cuts, Wounds, Ulcers, Grease Heel. Antiseptic and soothing. Heals everything it touches by forming a coating, cleaning and closing up wounds. Comes in sifting-top cans. Price: **4-oz., 25c.; 10-oz., 50c.**

ABSOLUTELY GUARANTEED.



Dr. Hess Fly Chaser

Drives flies away. One application lasts six hours. Prevents milk slump. Keeps cattle and horses contented during the fly season. Most humane idea of the age. Its use during summer months will insure good profits. GUARANTEED.

1 Gal., \$1.50

Dr. Hess Heave Powders

A dependable preparation for relieving horses of heaves, chronic coughs, asthma, bronchitis, etc.; with careful diet, the frequent use of this valuable preparation will afford permanent relief in the majority of cases. Price, **1 1/2-lb. package, 50c.**



Dr. Hess Colic Remedy

A reliable preparation for the treatment of Spasmodic and Flatulent Colic, Gripes, Acute or Chronic Indigestion, Impaction of the Stomach, Bowel Inflammation, etc.

Price, **\$1.00. GUARANTEED.**

Dr. Hess Distemper Remedy

A reliable preparation for Distemper, Acute Colds, Fever and Cough. Price, **50c. GUARANTEED.**

You Money Back If Not Satisfied

Conkey's**POULTRY REMEDIES****Conkey's Roup Remedy**

Known to every poultryman. A wonderful remedy that quickly reduces the swelling and brings the bird back to normal. Given in the drinking water.

Packages, 30c., 60c., \$1.20. Sent postpaid.

Conkey's White Diarrhea Remedy

To be given to young chicks from the first drink until they are three weeks old. Aids wonderfully in preventing the development of this dread disease. Also desirable at intervals for the grown birds and especially so at mating time.

Packages, 30c. and 60c.
Sent postpaid.

Conkey's Cholera Remedy

For indigestion and so-called cholera in growing and grown birds. Given in drinking water quickly overcomes the diseased, feverish condition.

Packages, 30c. & 60c. By mail, 35c. & 65c.

**SAL-VET**

The Great
Worm Destroyer.

The Great
Live Stock Conditioner.

SAL-VET is a medicated salt—a safe, simple, inexpensive remedy which gives stock the medicines they need along with the salt they crave. It requires no dosing, no drenching, no starving. It goes into the stomach and intestines and loosens the leach-like hold these blood-sucking parasites have on the tender linings. It drives the robbers out—without bother or trouble to you. Your animals eat SAL-VET in place of common salt and thus doctor themselves.

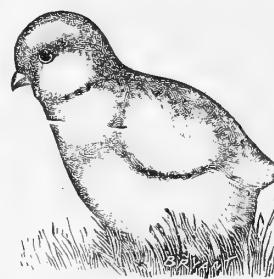
PROTECT YOUR HERD AGAINST DISEASE.

Don't pay the frightful price of worm neglect. Don't wait until cholera breaks out in your neighborhood. Fortify your stock against disease. Get rid of the blood-sucking, disease-breeding worms now. Put every animal on your farm in a healthy worm-free condition so they can get more good of what they eat—gain faster—make you more money.

A SINGLE WORM-INFESTED HOG IN YOUR HERD IS A CONTINUAL MENACE TO YOUR HOG PROFITS.

It is the worm-infested, half-starved animals that spread the deadly worm curse over your farm. They are disease-breeders and disease-carriers of the worst kind. Helpless themselves to resist contagion, they let down the bars to the cholera scourge and death stalks through your herd. They are the danger spots in every herd.

15-lb. packages "Sal-Vet".	at \$1.50 each
40-lb. packages "Sal-Vet".	at 3.00 each
100-lb. kegs "Sal-Vet".	at 6.75 each
200-lb. barrels "Sal-Vet".	at 12.00 each
300-lb. barrels "Sal-Vet".	at 16.75 each



CHICK MANNA
or
HEALTH FOOD
(For Little Chicks)

Chick Manna is one of the first foods put up especially for baby chickens. It is the best thing on the market, and should be used exclusively for the first ten days. It will save many little chickens, and will repay many times its cost. The first ten days will decide whether the chick will grow into a profitable chicken.

With **Chick Manna** you are sure of a prime healthy chicken, one that will pay you to raise.

Prices:	\$.15
1-pound package . . . . .	.45
3-pound package . . . . .	.70
5-pound package	2.00
15-pound package	7.00
60-pound box bulk	

SUCRENE

Feeds for All Farm Animals



These feeds have been the recognized standard grain and molasses mixed feeds for 18 years. Approved by expert feeders in State and U. S. Government service and fed continuously by thousands of leading stock raisers.

Complete Correctly Balanced Rations

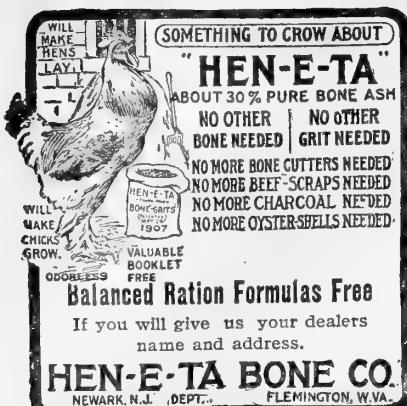
Insure increased milk flow, more pork and beef per pound of feed consumed, quicker calf growth and more eggs from poultry. Saves trouble and grain.

Sold by dealers everywhere under a positive guarantee of uniform high quality.

Write us for carefully written free books and folders giving valuable information on care and feeding of live stock. Indicate in which feed you are interested.

	100 Pounds	Ton
Sucrene Dairy Feed	\$3.25	\$60.00
Sucrene Hog Meal	4.50	85.00
Sucrene Poultry Mash	4.50	90.00
Sucrene Calf Meal	5.50	. . . . .
Sucrene Alfalfa Horse Feed	3.75	. . . . .
(60% Grain)		
Kick-A-Poo Horse Feed	3.50	. . . . .
(70% Oats)		

"HEN-E-TA" BONE GRITS



Every 100 hens will need 100 lbs. "Hen-e-ta" per month, and should have it the year round; or 1 lb. "Hen-e-ta" per average fowl per month. The cost of this amounts to nothing, when compared with the results obtainable and the saving of other materials. All sizes are same price.

Prices: 10 lbs., 50c.; 25 lbs., \$1.00; 50 lbs., \$2.00; 100 lbs., \$3.00. Special price in ton lots.

"HEN-O-LA" DRY MASH

Is the ONLY MASH on the Market To-day That is
"Within Itself" a

COMPLETE BALANCED RATION FOR POULTRY.

It contains the five nutrients from wholesome sources, and in the right proportions to meet the requirements of fowls. The Five Nutrients are protein, fat, carbo-hydrates, phosphorus and lime. We derive the first three from sound ground grains only; the last two from "Hen-e-ta." It takes 4.6 lbs. of carbo-hydrates to digest one pound of protein, and it takes about one pound of phosphate of lime (bone ash) to assimilate two pounds of protein, after the protein has been digested by the carbo-hydrates. In the absence of phosphates no assimilation can take place, and your profits come from assimilated food and not from digested food.

Price: \$4.50 per 100 lbs.

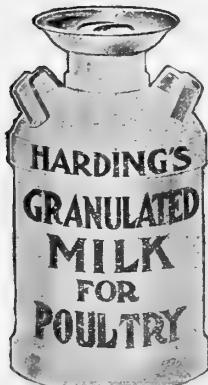
HOG BON

builds strong, big pigs, with large bone-frames, carrying lots of meat. The phosphoric foods in Hog Bon fatten and hasten maturity. Without phosphoric foods, your hogs will literally die of starvation, no matter how much protein you feed. Your first aim must be to utilize the protein fed—and you cannot accomplish this by feeding more protein. You must feed more phosphorus and less protein.

The better results obtainable through tankage in the ration is not so much due to the little extra protein thereby supplied, but is LARGELY (if not entirely) due to the "phosphates," which all tankage contain. But, they do not contain enough phosphates of the right kind.

Price: 100-lb. bags, \$3.25; 500-lb. lots, \$15.00.

Granulated Milk for Poultry



For years poultrymen have been looking for a substitute for animal meal and beef scrap, on account of the offensive odor of the latter, and the uncertainty of keeping it sweet or wholesome some during the warm weather. At last the desired object has been accomplished by perfecting a process of granulating a milk product, obtained at the Milk Sugar factories of the United States.

"It is simply concentrated skim milk, but it even much more desirable, because it is in a dry form, and can be fed in any desired quantity. Analysis shows it to contain about 45 per cent. protein, about 15 per cent. of which is clear albumen, also 15 to 20 per cent. fat, the balance being ash, lime, etc. It is one of the richest protein foods known, and cannot fail to be admirably adapted to poultry uses. The cost is about the same as beef scrap."

It will increase your egg production from 30 to 40 per cent. over Beef Scrap and will keep indefinitely in any climate. Just the thing to keep fowls bright and active. 1 lb., 15c.; 25 lbs., \$1.75; 100-lb. bag, \$6.00.

MILK PROTEIN MASH

This Poultry Mash is made of Granulated Milk thoroughly mixed in a well-balanced proportion with the best of grain, seeds, alfalfa, etc. It has double the value of almost any other mash food now on the market.

4 lbs., 40c.; 50 lbs., \$3.50; 100-lb. bag, \$7.00.

LEE'S EGG MAKER

AND CHICK GROWER

LEE'S EGG MAKER is the biggest value for the money ever offered to the poultry raiser. Being highly concentrated, only a small amount per day is required. It must not, therefore, be compared with foods that require fully twice as much per feed and from two to three feeds per day.

Package.....	25c. and 50c.
25-lb. pail.....	\$3.50

LEE'S GERMOZONE

(IN TABLETS OR LIQUID)

For roup, cholera and other poultry diseases; also skin, scalp and mucous surfaces. Specific for eruptions, inflammations, discharges, sores, wounds, etc. GERMOZONE IS A GREAT REMEDY. Directions with every package.

Price, per package, 75c.; per bottle, 75c.

LEE'S LICE KILLER

Is easily applied to roost poles and about the poultry-house, and kills all vermin, mites, bedbugs, etc., that have their lodging in the cracks and crevices.

Price: Quart. $\frac{1}{2}$ Gallon. Gallon.

LEE'S LICE POWDER

Is intended especially for use on setting hens and little chicks. Is also of great value for insects on plants and vegetables, and for general use about household. Price, 20-ounce package.

SUCCULENTA TABLETS

SUCCULENTA TABLETS do away with all the bother, the time and labor of feeding your chickens green sprouted oats, cabbage, beets, roots and all other green food.

SAVE ONE-HALF THE COST.

Greatest discovery ever made in the poultry industry; simply dissolve a tablet in the drinking water; fowls drink it with a relish.

Via parcel post direct to you:	
100 Large Tablets.....	\$.60
250 Large Tablets.....	1.00
500 Large Tablets.....	2.00

HARDING'S SUCCESSFUL ROUP CURE

For Roup, Colds, Canker, etc. One of the best remedies on the market.

Price: 25c., 50c. and \$1.00.

HARDING'S SCALY LEG CURE

A penetrating antiseptic liquid, easily and quickly applied. Harmless to feathers. An excellent leg polish for the show room. Useful in dressing flesh wounds and sores.

Price..... 25c.

BLATCHFORD'S PIG MEAL

The safety route from pighood to porkage. All "baby" pigs should be weaned on this strengthening tissue-builder. They will grow continuously and rapidly, developing bone and size without taking on surplus fat.

100 pounds makes 100 gallons of milk-substitute.

25-pound sacks.....	\$1.60
50-pound sacks.....	3.00
100-pound sacks.....	6.00

BLATCHFORD'S LAMB FOOD

A Baby Food for Baby Lambs. Because it fully substitutes the ewe's milk for motherless lambs. It carries all lambs in a thriving condition safely and rapidly from weaning time to the early market.

25-pound bag.....	\$1.60
50-pound bag.....	3.00
100-pound bag.....	6.00

HIGH GRADE HEN FEED

THE BALANCED RATION FOR LAYING HENS.
ALL GRAIN; NO GRIT OR SHELLS.

This feed is formulated from pure, sweet grains. Only those grains are used that are of known value for producing eggs. This is the feed for the poultryman who feeds for profit. 5 lbs., 30c. 10 lbs., 50c. 100-lb. sacks, \$4.75. Special price in larger quantity.

HIGH GRADE CHICK FEED

"THE FEED THAT IS ALL FEED."
ALL GRAIN; NO GRIT OR SHELLS.

This feed is absolutely pure and unadulterated, containing no offal or injurious ingredients, such as rice hulls, ground straw or cobs, etc. It will not hurt or scour chicks.

5 lbs., 30c. 10 lbs., 60c. 100-lb. sacks, \$5.00.

PULLET or DEVELOPING FOOD

The demand for a food for developing young chickens has increased with the demand for young chickens for market. This food will develop a large marketable chicken in the least possible time. Just the mixture to make them grow quickly.

5 lbs., 35c. 10 lbs., 60c. 100-lb. sacks, \$5.00.

MASH FEED TO MAKE HENS LAY

This is a complete mash, containing ground grain, alfalfa meal, meat meal, and everything necessary for producing a large egg yield. Mix with hot water, and it is ready to feed.

5 lbs., 30c. 25 lbs., \$1.25. 100-lb. sacks, \$4.50.

BLATCHFORD'S FILL THE BASKET EGG MASH

The excess nutrient taken by the hen from Blatchford's "Fill the Basket" Egg Mash causes the development of eggs so that she has to lay during the winter, while the ordinary unbalanced rations tend to produce fat hens, but lean profits.

Blatchford's "Fill the Basket" Egg Mash is made up of Blatchford's Calf Meal, the complete milk-equal, combined with the best quality meat and fish scraps and alfalfa and grain meals. This makes a perfect, balanced egg-producing mash, consisting of protein, 19 per cent.; fat, 4 per cent.; fiber, 10 per cent.

25-pound bags \$1.50
100-pound bags 5.00

PURITY PIGEON FEED

The mixture contains a great variety of grain and seeds properly balanced under the direction of a successful man who has had years of study and experience with pigeons. No grit. No shell. 1 lb., 10c. 10 lbs., 80c. Per 100-lb. sack, \$6.50.

G. & T. CO'S HIGH GRADE PURE BEEF SCRAP**50 TO 55 PER CENT. PROTEIN.**

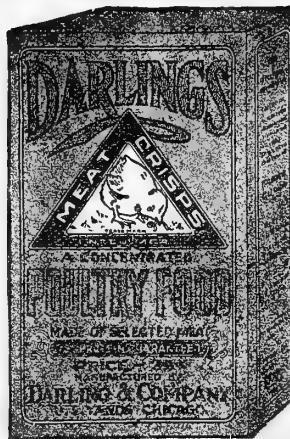
This Beef Scrap is the highest possible grade, and is made from Pure Beef Trimmings and cracklings, and has no pork or other materials to cheapen same. It is fully guaranteed as to quality and will keep indefinitely. Price: 5 lbs., 50c. 100-lb. bag, \$6.50. 45% Scrap, 100-lb. bag, \$6.00.

ALFALFA MEAL

This is a green feed all the year round. Everyone knows that alfalfa is fast supplanting clover. It is very high in protein, and furnishes the chicks a growing food which, at the same time, has a medicinal value. 5 lbs., 25c. 50 lbs., \$1.75. Per 100-lb. sack, \$3.25.

GRANULATED CHARCOAL

A little ground charcoal mixed with the soft feed in the morning, once or twice a week, is an excellent corrective for the fowls, and keeps them healthy. We carry three sizes, one for grown fowls, one for small chicks, and pulverized. 5 lbs., 50c. 25 lbs., \$2.50. 50-lb. sack, \$4.50. 100 lbs., \$6.00.

**DARLINGS MEAT CRISPS**

A clean, wholesome High Protein (75 per cent. guaranteed) Meat Product. Although Darling's Meat Crisps is a little higher in price than the ordinary product, the greatly increased feeding value (due to the High Protein content), and the clean, sweet character of this feed make it more profitable to feed. Each hen laying only one extra egg a month will more than make good the difference, and you are building a healthy, prolific flock.

3-pound package \$.50
6½-pound package75

White Diarrhoea and Chicken Cholera can be cured and prevented by AVICOL.

STOP THE LOSSES!

You practical poultry breeders, who have had actual experience with these two diseases—but they don't differ about the results. When once in your flock, unless checked at once, you stand to lose heavily.

AVICOL SAVES THE CHICKS—Avicol has a specific and selective action on the germs causing Cholera and White Diarrhoea. It knocks the germs and gives the chick a chance. Prices 25c. and 50c.

HACKETT'S GAPE CURE.**CURE FOR
Chicken Gapes**

REGISTERED

THE NEW WAY.

BONE MEAL FOR POULTRY.

This is exactly the same as the Cracked Bone described below, only it is ground much finer. 5 lbs., 50c. 10 lbs., 75c. 50 lbs., \$3.00. 100-lb. sack, \$5.50.

CRACKED BONE FOR POULTRY

This article is manufactured from fresh, clean bones, and is perfectly pure and sweet. No chemicals whatever are applied to them in the course of manufacture. Should be fed to the poultry daily, like grain or any other feed. An excellent bone and egg producer, keeping the fowls strong on their legs and largely increasing their laying qualities. Especially valuable for young and growing chicks. We carry two sizes, No. 1 for grown fowls, and 2 for young chicks. 5 lbs., 50c. 10 lbs., 75c. 50 lbs., \$3.00. 100-lb. sack, \$5.50.

CRUSHED OYSTER SHELLS.

It aids digestion as well as supplying lime. Experiments have proved that hens supplied with oyster shells lay more eggs. We carry two sizes in stock, No. 2 for grown fowls, and No. 3 for young chicks. 5 lbs., 25c. 100 lbs., \$1.25. 500 lbs., \$6.00. Special prices in larger quantities.

MICA QUARTZ GRIT.

(Poultry, Pigeon and Chick Sizes.)

Grit is as essential for poultry as food, as without it they cannot digest the food. Poultry will starve to death with full crop for no other reason than they have no teeth with which to grind the food into proper consistency. Grit should be mixed with the food and fed in hoppers or boxes, about one part of grit to fifteen or twenty parts of food. 5 lbs., 25c. 100-lb. sacks, \$1.25.

HORSE AND CATTLE REMEDIES



KOW-KURE THE GREAT COW MEDICINE

the milk. It is a medicine for cows only. Prices, small size, 60c.; large size, \$1.20.

BAG BALM

For all diseases of the cow's udder and teats there is no remedy so quick and certain in its curative powers as **BAG BALM**. It is a soothing, penetrating ointment, especially adapted for all those serious and annoying troubles known as caked bag, cow pox, chapped, cracked and sore teats, bunches, chafing and inflammation of all kinds. **BAG BALM** penetrates through the skin and inner tissues at once, reaching the glands, where it reduces the inflammation, breaks up the bunches and spreads its cooling, softening effect to all the affected parts. This remedy has met with unequalled success, and is found on the most progressive dairy farms in the country. Price.....60c.

AMERICAN HORSE TONIC

This tonic is a specific for horses, an actual medicine that goes to the root of all horse ailments and removes the cause of the trouble. A few doses will send a dull, listless horse on its way rejoicing.

Its curative power is wonderful. **AMERICAN HORSE TONIC** is the best remedy known for worms, stoppage of water, all bowel complaints, inflammation of the lungs, recent founders, distemper, coughs, colds and swelling of the glands of the throat. Small size, 30c.; large size.....60c.

HORSE COMFORT

The Most Remarkable Remedy Ever Compounded for Healing Cuts and Open Sores of Every Kind. **HORSE COMFORT** is a liquid preparation which is unequalled in its power to quickly cure all kinds of open sores or abrasions of the skin. It is used by simply wetting the sore spot. No bandages or filthy rags, no rubbing or heating it in. Simply wet the spot and the cure begins. Price, per bottle, 30c. and 60c.

GRANGE GARGET REMEDY

This remedy has stood the test of twenty years as a successful remedy, and is indorsed by thousands of dairymen.

Price, Per Can.....60c.

SAL-MEDICO

THE GUARANTEED WORM DESTROYER.

It contains medicinal properties which immediately kill and expel stomach and intestinal worms and parasites, at the same time restoring the digestive organs to a normal and healthy condition.

Start now and save Stock and Hog losses.

10-lb. package	\$0.80
16-lb. pail	1.00
40-lb. pail	2.25
100-lb. bag	5.00

SPRATT'S DOG REMEDIES

These remedies have been on the market for fifty years, and are sold in most every country in the world. In offering them for sale we recommend them as being the best in their line, and properly used will give satisfactory results.

We do not list but a few of the various remedies of this standard make, and if you desire any of those we do not list, we will be glad to get them for you.

Spratt's Dog Cake, the standard dog food used at the different kennels and dog shows throughout the world. Prices, small carton, 15c.; medium carton, 35c.; large carton, 70c.

Spratt's Puppy Cake, small carton, 15c.; large carton, 35c.	
Spratt's Puppy Meal, cartons, 15c.	
Spratt's Alterative Cooling Tablets.....	\$.60
Spratt's Anti-Vomit Tablets .....	.60
Spratt's Digestive Tablets .....	.60
Spratt's Diarrhoea Tablets .....	.60
Spratt's Distemper Tablets .....	.75
Spratt's Hair Stimulant and Restorer.....	.60
Spratt's Kidney Tablets .....	.60
Spratt's Liniment .....	.60
Spratt's Pneumonia Tablets .....	.60
Spratt's Purgative Tablets .....	.60
Spratt's Worm Capsules for Puppies.....	.60
Spratt's Tonic and Condition Tablets for toy dogs and puppies .....	.60
Spratt's Distemper Tablets for toy dogs and puppies....	.70
Spratt's Vermifuge Capsules for toy dogs and puppies...	.60
Spratt's Eczema and Sarcoptic Mange Remedy.....	2.00

Spratt's Patent Improved Dog Soap (White), for fleas, lice, etc. It is entirely free from poison and at the same time most effective in the destruction of lice and fleas. Per cake.....25

Spratt's Patent Antiseptic Soap (Black), for veterinary uses, etc. Per cake.....50

DR. DANIELS' VETERINARY REMEDIES

These remedies are all compounded from the best ingredients for the purpose intended. Each is a bona fide prescription of an eminent veterinarian.

You can save the cost many times over by having a stock of these remedies on hand; a 60c. package will many times save a very valuable animal.

COLIC CURE	\$1.25
OSTER COCUS LINIMENT.....	.35c. and .65
WORM KILLER .....	.65
ABSORBENT BLISTER .....	.65c. and 1.25
GALL CURE .....	.35c. and .65
RENOVATING POWDER .....	.65
COUGH, COLD AND FEVER DROPS .....	.65
WONDER WORKER LINIMENT .....	.65
HOOF GROWER AND SOFTENER .....	.65
CARBO-NEGUS DISINFECTANT .....	.35c. and .65

DR. LESURE'S VETERINARY REMEDIES

COLIC DROPS	\$1.25
FEVER DROPS .....	.65c. and 1.25
COUGH AND TONIC DROPS .....	.65c. and 1.25
RENOVATOR POWDER .....	.65c. and 1.25
WORM ANNIHILATOR .....	.65
ELECTRIC HOOF OINTMENT .....	.65
ALL-HEALING BALM (LINIMENT) .....	.65
LESURE'S SPECIAL LINIMENT .....	.65
GALL REMEDY .....	.35c. and .65
DR. LESURE'S FAMILY LINIMENT .....	.35
ANTISEPTIC HEALING POWDER .....	.65

BLATCHFORD'S CALF MEAL

THE BEST WAY TO RAISE A CALF WITH LITTLE OR NO MILK

Feeding Directions—For very young calves, let the calf run with the cow for three days, then feed it the mother's milk from a bucket for two days more—three pints of milk three times a day. In this way it gets all of the cow's first milk (colostrum), and this will clean the bowels and start the digestive organs of the calf properly. After the fifth day from birth, take two tablespoonsfuls of Blatchford's Calf Meal, add hot water and stir this into a thick paste, free from lumps. Then add one quart of whole milk and one quart of separator milk, stir thoroughly and feed blood-warm. This amount should be fed three times a day. Continue this, gradually substituting separator milk for the whole milk. Full feeding directions for young and old calves are printed on a card and will be found in every bag. These directions will serve as a general guide. Calves vary so much in size, strength and digestive capacity that much must be left to the discretion of the feeder. We have discontinued the publication of a minutely detailed feeding table, having found that it is apt to be too rigidly followed. Even some of the higher authorities connected with the agricultural work in this country make this error. The objects to be attained in feeding calves are rapid growth, health and quality. To obtain these calves require Blatchford's Calf Meal; clean housing; clean feeding utensils; plenty of sunlight; regularity in time of feeding; and, above all, not to be overfed. Overfeeding causes acidity of the stomach—bloating or pot-gut—a dull, lazy condition instead of energy and playfulness. Don't overfeed! Darkness and gloom beget disease, destroy cheerfulness and materially lessen growth. Therefore it is important that calves be placed in well-lighted stalls.



DOUBLED FARM PROFITS.

Maturing or vealing all your calves rapidly on Blatchford's Calf Meal, at a cost of about one-fifth of what you get for your milk, then selling all the milk at a good profit, should appeal to you and to every wide-awake farmer as a good, profitable proposition. These profits, both ways, need not be guessed at; they are discernible at a glance. Another source of profit that heretofore has been overlooked by most farmers is the raising of the fall and winter calf on this same milk-substitute. Many farmers and dairymen have taken up winter dairying, reaping the extra big profits on milk and cream during the winter months, but often the calf has been immediately "murdered." Calves raised during the winter give you veal during the term of high prices and are just as easily raised then as during the summer. Fall "freshening" is greatly to be desired. With the help of the silo or an abundance of alfalfa hay the winter feeding keeps up the milk supply until the new grass comes in the spring. The new pastures stimulate the milk-flow and keep it up through the summer. The winter milk prices more than offset the cost. When you stop to consider that this complete milk substitute costs you less than skim milk and is far better for calf-raising—made expressly for the calf—you will get some idea of its high efficiency. It is made from several kinds of whole grains and seeds, and includes oil, sugar and albuminous compounds, pure locust-bean meal and pure flaxseed ground, with the oil left in. You cannot begin to get the results from any other method of calf-raising that you can get from feeding Blatchford's Calf Meal, the *complete milk equal*.



Prices: 25-lb. bag, \$1.60; 50-lb. bag, \$3.00; 100-lb. \$6.00.

SAFE - CLEAN
POWERFUL
SAVES TIME



NOT A POISON
LEAVES NO ODOR
SAVES LABOR

DISINFECTANT — DEODORANT — ANTISEPTIC

LABORATORY TESTS SHOWING THE POWER OF B-K TO KILL VARIOUS KINDS OF DISEASE GERMS.

TYPHOID TEST.—Dilution used: One part B-K to 1,500 parts water. Killed *Bacillus typhosus* at once.

STREPTOCOCCUS TEST.—Dilution used: One part B-K to 700 parts water. Killed *Streptococcus* at once.

DYSENTERIAE TEST.—Dilution used: One part B-K to 1,000 parts water. Killed *Bacillus dysenteriae* at once.

COLON BACILLUS TEST.—Dilution used: One part B-K to 1,200 parts water. Killed *B. coli* at once.

STRENGTH OF B-K COMPARED WITH OTHER DISINFECTANTS.

The tests below show B-K to be many times more effective than Carbolic Acid, Formalin, Cresol, etc., in the destruction of such germs as Typhoid, Streptococcus, Dysenteriae, etc., even when B-K is used much diluted. It is much stronger than Cresol which is one of the strongest of the many coal-tar derivatives, and therefore, the superiority of B-K as a disinfectant is obvious both as to efficiency in results and low cost to use.

TESTS.

Organism used: *B. coli*.

Time of action: two minutes.

B-K Dilution: 1 part to 1,800 parts water. Germs killed.

Phenol (Carbolic Acid)—Dilution: 1 part to 80 parts water. Germs not killed.

Formalin—Dilution: 1 part to 125 parts water. Germs not killed.

Cresol—Dilution: 1 part to 200 parts water. Germs not killed.

Phenol, Formalin and Cresol did not kill the germs, though exposed for two minutes. B-K did kill them because it is many times stronger. Yet, the others are poisons, while B-K is not a poison.

STANDARD B-K "BULK" PACKAGES



One Gal. Bottle
Shipped in
Wooden Box



One Quart
in Carton

1-Quart Bottle	\$1.00
1-Gallon Bottle	2.50
5-Gallon Carboy	11.00

Five Gallon Carboy
Shipped in Wooden Box

SO - BOS - SO

Trade KILFLY Mark

MORE MILK!
MORE MONEY!



Cows will give 15 to 20 per cent. more milk if protected from the torture of flies with **So-Bos-So KILFLY**. Kills flies and all insects; protects horses as well as cows. Perfectly harmless to man and beast. Rapidly applied with **Child's Electric Sprayer**, 30 to 50 cows sprayed in a few minutes. A true antiseptic; keeps stables, chicken houses, pig pens in a perfectly sanitary condition.

What is more trying to the patience than to milk a cow when she is continually stepping back and forth and lashing her tail under the irritation of a lot of flies? A moment's work with a Sprayer and a little **So-Bos-So KILFLY**, and all is quiet and serene. From 30 to 50 cows can be sprayed in a few moments.

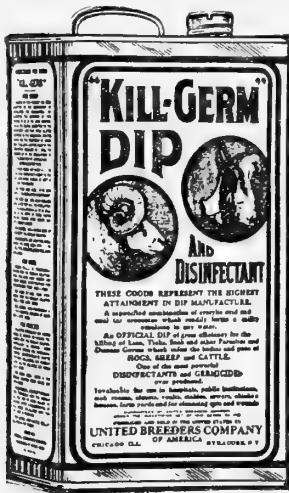
Put up in One-Gallon Cans.

EACH CAN BEARS THE TRADE-MARK SEAL.

PRICE—1 gallon \$1.50
Sprayer for applying So-Bos-So, 60c.

KILL-GERM DIP and DISINFECTANT

These goods represent the highest attainment in Dip Manufacture.



A Saponified combination of Cresylic Acid and Coal Tar Creosotes, which readily forms a milky emulsion in water.

An official dip of great efficiency for the killing of Lice, Ticks, Scab and other Parasites and disease germs which infest the bodies and pens of Hogs, Sheep and Cattle.

One of the most powerful Disinfectants and Germicides ever produced. A powerful Antiseptic and Purifier. For sanitary purification of dwellings and tenement-houses, sinks, closets, stables, public schools, railway stations, hospitals, workshops, hotels, etc., it is unequalled.

Full directions on every can.

1-quart can	\$0.50
½-gallon can	.85
1-gallon can	1.35
5-gallon can	6.00
½ bbl., per gallon	.90
1 bbl., per gallon	.85

GRADE 1 CREOSOTE OIL

Grade One Liquid Cresote Oil is coal-tar cresote refined sufficiently to give the maximum efficiency to the convenient and inexpensive Brush and Open Tank methods of treatment. Briefly, Grade One Liquid Creosote Oil is superior to the commercial coal-tar cresote for use by the small consumer, because

It is liquid.
It is free from water.

It has low evaporation loss.
It has high specific gravity.
It has low viscosity, and, being liquid, penetrates readily and deeply into the wood.
It has increased antiseptic and decay-preventing qualities.
It is a clean oil and imparts a pleasing, dark-brown color to the wood.
It is uniform, standardized material.

1-Gal. Can.....	\$.75
5-Gal. Can.....	3.50

COW - EASE

RELIEVES CATTLE AND HORSES FROM FLIES.



board; it will prevent head lice and fleas and keep the house in a sanitary condition.

Prices: Qt., 50c.; ½-gal., 85c.; gal., \$1.50; 5-gal. can, \$7.00.
Sprayer for applying Cow-Ease, 60c.

DR. HESS FLY CHASER



Drives flies away. One application lasts six hours. Prevents milk slump. Keeps cattle and horses contented during the fly season. Most humane idea of the age. Its use during summer months will insure good profits. GUARANTEED.

1 Gallon, \$1.50.

CREONOID

LICE DESTROYER AND FLY SPRAY.

Takes the worry of your hens. Protects your cattle and horses.

CREONOID means animal comfort. It effectively keeps them free from the persistent Texas and other flies. It means comfort in milking and increased yield in milk. Eliminates fretting and nervousness.

Use it freely to keep the hen-house clear of pests.

Price: Gallon Cans, \$1.50.

WHY
Should You Use

Avenarius
CARBOLINEUM

BECAUSE
It Doubles the Life
of Your Timber

Nurserymen and seedsmen will realize its labor and money-saving value when they can save from rotting thousands and tens of thousands of labels, stakes and posts, likewise hotbed frames and greenhouse timber.

You can make it pay

Hundreds of dollars annually in economizing on the maintenance of wooden buildings and fences. Every beam, sill, joist and floor plank in your storage sheds, stables, feed and seed bins can be made to span the lifetime of at least two that are not treated. Always keep a supply on hand at the farm for odd-and-end repair work. Used once a year in poultry-houses, makes lice and mites disappear as if by magic. Try it. Prove it. **Prices, per gallon:** 1 gal., \$1.50; 5 gals., \$1.30; 10 gals., \$1.25.

PRAIRIE STATE INCUBATORS

THESE MACHINES ALL BEAR THE INSURANCE UNDERWRITERS' LABEL

THE PRAIRIE STATE SAND TRAY INCUBATOR No. 0 and No. 1

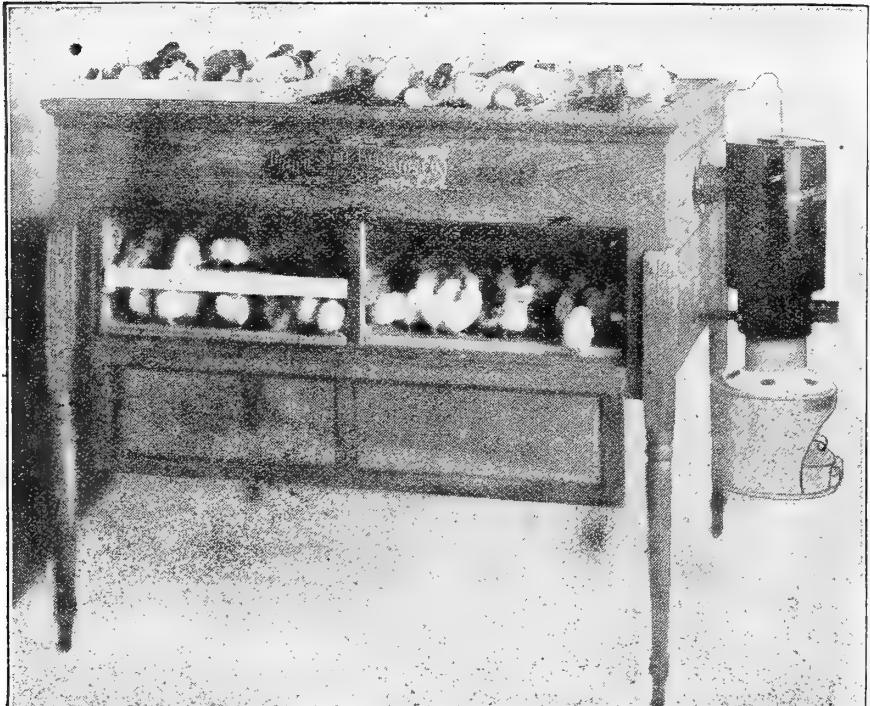


THE PRAIRIE STATE SAND TRAY

with nursery—our standard for the past eight years. It is offered now in a further improved condition, fitted with our latest type fool-proof heater, and provided with a wire chick tray substituted for the burlap formerly used, which, resting just above the sand tray, permits this tray to remain throughout the hatch, thereby retaining uniform humidity until completion.

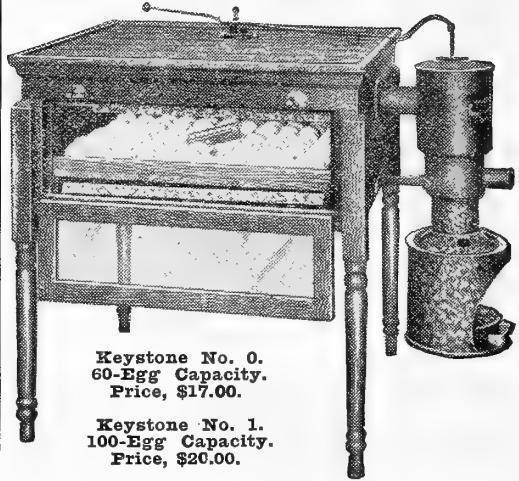
No. 0—100 hen eggs; 125 lbs. crated. \$31.00
No. 1—150 hen eggs; 160 lbs. crated. 39.00

THE PRAIRIE STATE SAND TRAY INCUBATOR Nos. 2 and 3



No. 2—240 hen eggs; 240 lbs. crated, \$55.00. No. 3—hen eggs; 275 lbs. crated, \$70.00.

KEYSTONE INCUBATOR



Keystone No. 0.
60-Egg Capacity.
Price, \$17.00.

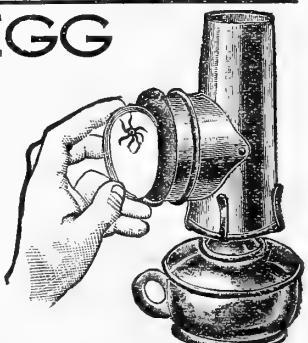
Keystone No. 1.
100-Egg Capacity.
Price, \$20.00.

is small, compact, efficient, moderate in price. Designed for fanciers, for beginners, or for those who wish to hatch only a few chicks each year. Given to the trade only last season, somewhat as an experiment, it instantly made a record for high hatching efficiency, which has prompted us to offer it again in a perfected condition, with every weak point removed.

No. 0—60-Egg, \$17.00 No. 1—100-Egg, \$20.00.

EGG

TESTER



Price, 35c. Postpaid, 40c.

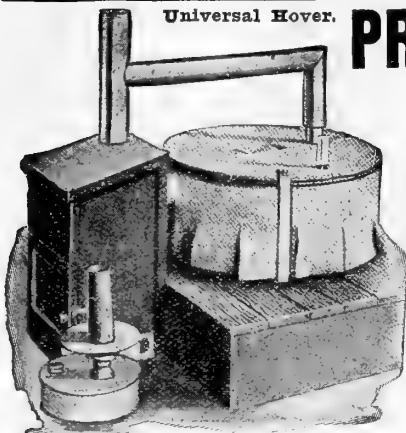
INCUBATOR LAMPS

No. 1 Lamp and Burner, using $\frac{1}{2}$ -inch wick	\$1.00 each.
No. 2 Lamp and Burner, using 1-inch wick	\$1.25 each.
No. 3 Lamp and Burner, using $\frac{1}{2}$ -inch wick	\$1.50 each.
Brooder Lamp, complete	\$1.25 each.
No. 1 Sun Hinge Burner	.50c.
No. 2 Sun Hinge Burner	.60c.
No. 3 Sun Hinge Burner	.75c.
Nos. 1 and 2 Wicks	.25c. doz.
No. 3 Wicks	.30c. doz.

PRAIRIE STATE TESTED THERMOMETERS

No. 1—Hang-up Thermometer, with wire hanger, each	\$1.25; price, post paid
No. 2—Universal; may be used as hang-up, reclining, stand-up or inclining with proper holder. Without holder, each	\$1.00; postpaid \$1.10
No. 3—Reclining or lay-down pattern, each	\$1.00; postpaid \$1.10
No. 5—Incline, with holder, each	\$1.00; postpaid \$1.10
No. 6—Brooder Thermometer for Prairie State Brooders, each	\$1.00; postpaid \$1.10

Universal Hover.



PRAIRIE STATE UNIVERSAL HOVER

It may be attached to any form of outdoor brooder, two feet or more in height, to any size or form of colony house, shed, coop, piano, dry goods or organ box. It also enables those who wish to build their own brooders to get the best brooding device possible in an economical manner. It fills that want, felt by everyone who raises poultry, for something they can use anywhere, any time, and do the work well.

The hover is twenty-two inches in diameter, the top of which is wood, lined with strawboard, a 4-inch rim extending downward, to which is attached six inches of felt curtains. The hover stands on three iron feet, but is not stationary, and may be raised and moved instantly, if desired.

A thermometer is provided, which may be read from the outside without disturbing any part of the brooder.

UNIVERSAL HOVER.—Price for hover, with lamp case, smoke conductors, lamp and thermometer, \$8.00.

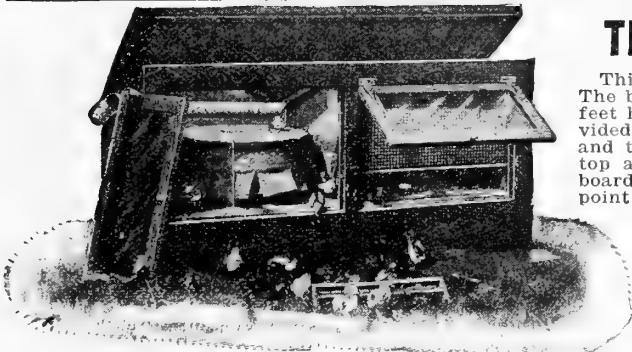
When used indoors alone, lamp case and smoke conductors are not required. Hover and lamp, \$7.00.

Hover regulator, \$1.00 extra.

THE PRAIRIE STATE JR. PORTABLE HOVER

The Prairie State Portable Hover embraces in principle and construction all those original and successful features which at once established the high reputation of the Prairie State Universal Hover. It is a Universal Hover so modified as to bring the lamp case to the floor level without sacrificing safety, economy of oil consumption, or ventilation, and involving attached lamp case and all-steel construction. It is a Portable Hover built along lines different from all others. Contrary to general practice in building Portable Hovers.

Prairie State Jr. Portable Hover, 60 to 100-chick size....\$10.00

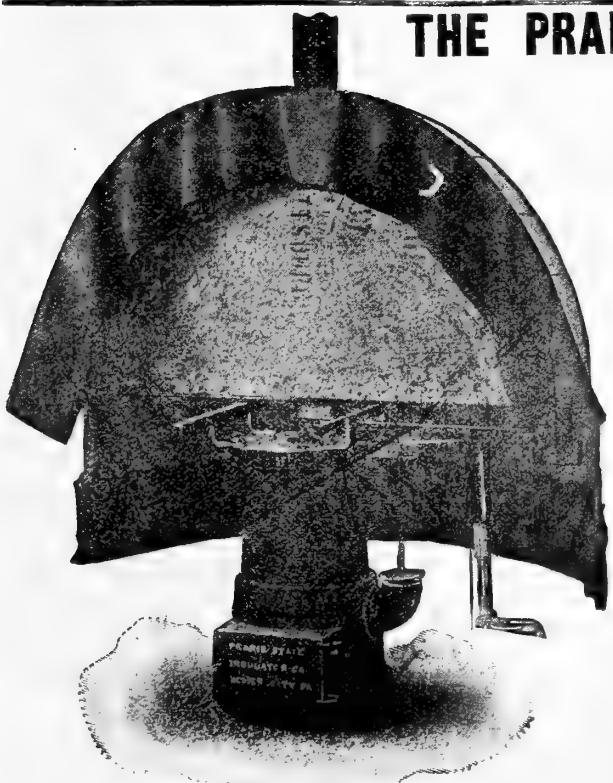


THE COMBINATION COLONY BROODERS

This Brooder House is constructed of tongued and grooved boards. The brooder is full size in all dimensions, 3 feet wide, 6 feet long and 3 feet high in front and 2 feet in rear, with tin roof. The interior is divided by a movable partition into two compartments—the nursery room and the exercising room or sun parlor. The nursery is double walled, top and sides, with dead-air space and paper insulation between the board partitions, securing warmth and uniform insulation. A strong point in the nursery is the circular hover without obstructions of any kind, such as hot drums or domes, leaving every inch of inside space available for the chicks. It is open all around. No cold corners or hot spots to crowd into. A glass door in front, 22 inches wide, furnishes light and access to the chicks. A movable board under the door brings the opening level with the floor of nursery and permits easy cleaning of the apartment.

No. 2—208 pounds.....\$30.00

THE PRAIRIE STATE STOVE BROODER



The Prairie State Stove Brooder is built solidly of cast iron throughout. This stove is not mounted upon legs. We have learned not to use them because they afford a space under the stove where chicks may huddle and be burned to death. Therefore, the base of our stove rests squarely upon the floor. Bolted to it is a cylindrical cast iron ash pit of ample capacity, fitted with a solid door having non-heating handle and containing no opening through which hot ash or sparks may fly. This door has no function in the regulation of drafts, and need never be opened except to remove ashes. The entire volume of fresh air required for proper combustion passes, subject to action of the regulator, through a cast iron air inlet elbow bolted to the top of the ash pit in such position as to admit air on the grate level. A one-piece jointless fire box rests upon and is bolted to the ash pit casting. It is made of a high-grade foundry iron of chemical content, such as will withstand intense heat through prolonged firing, and with such capacity as to insure maintenance of the fire through long periods. A free flow of fresh air has constant access to the entire fire pot from the bottom as it enters through the air inlet elbow. The top section of the stove, surmounting its fire box and bolted to it, involves in its assembly a cast iron valve seat which makes air tight contact when the upper regulator valve rests upon it. Four angle brackets bolted integral with the top plate to this section, two on each side of chimney opening, serve to support two parallel angle steel bearing bars, upon which rests the galvanized steel canopy or deflector forming the hover proper. Extending to the right of the chimney opening, and securely bolted to the top plate, is a solid cast iron bearer or bracket, from which is suspended the entire regulator. The capacity of the Prairie State Stove is as great as that of any stove upon the market today. That is, it will give heat sufficient to brood as many as one thousand to fifteen hundred chicks, doing it economically and safely. The canopy deflector of the Prairie State Stove Brooder is made of galvanized sheet steel, and in two sections, hinged together on a line with the center of the stove. The regulator with which we equip the Prairie State Stove Brooder is automatic, sensitive, positive, triple acting, and of exclusive Prairie State design. It is of the wafer thermostat type, fastened to a bar extending downward from the regulator support, wafer being placed at a level which has been carefully determined as best for indicating exact floor temperature required.

Price, complete, with equipment, 1000-chick size.....\$40.00
Prairie State Jr. complete, 250- to 1000 chick size.....25.00

QUEEN INCUBATORS

STOP HATCHING WEAK CHICKS

**WITH CHEAP
INCUBATORS!**

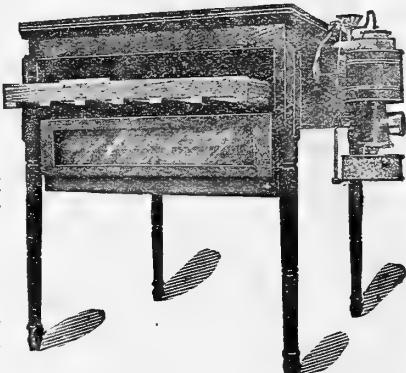


Queen No. 2—135-Egg Size

A **Queen** costs but little more, and the extra chicks that live and grow soon pay the difference.

Remember, it is not how many chicks you HATCH that counts, but how many you RAISE. Chicks that hatch out weak and wobbly, and live but a few days, mean nothing to you but trouble and loss. They make one sick of the poultry business.

Most of the chicks you lose in the first few weeks die because they did not have, when hatched, enough strength or vitality for a good start. **Queen Incubators** are famous the country over for big hatches of strong, healthy chicks that live and grow.



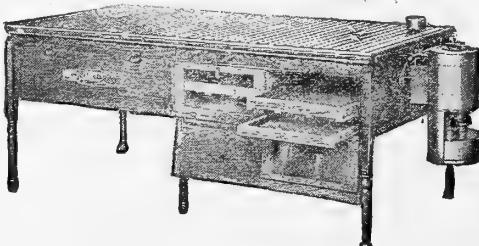
No. 3 Queen—180-Egg Capacity

PROPER INSULATION

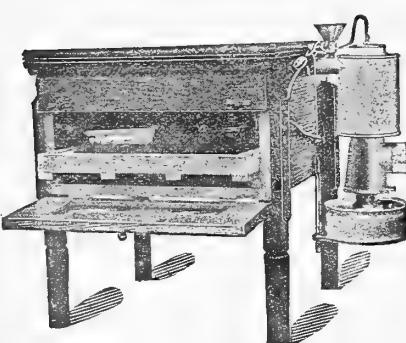
The **Queen** is doubly insulated. First we use double walls of California Redwood, forming a dead air space. Second, corrugated strawboard is used between the wooden walls. Proper insulation adds considerable expense to the manufacturing cost. However, it is an absolute requirement of a good Incubator.

QUEEN HOT WATER HEATING

The **Queen System** of hot water heating prevents the drying-out tendencies found in hot air incubators and provides a soft, uniform heat over every part of the egg chamber—a heat that is most natural for the hatching eggs. The circulation of water through the radiator prevents any moisture being added or taken away from the eggs. When it becomes necessary to remove the lamp, the hot water circulating through the radiator maintains an even heat within the egg chamber without the slightest variation.



No. 1 Baby Queen—85-Egg Capacity



No. 0—60-egg size

BUILT OF CALIFORNIA REDWOOD

The **Queen** is the only Incubator that carries out the double redwood wall construction all around, and provides a double wall front, in the way of two separate doors. The outer door is a solid panel of Redwood that is hinged entirely independent of the inner door and is fastened with a sash lock that draws it tight, thus making the loss of heat impossible.

The inner door is also of redwood construction, containing a panel of glass the full length and height of the egg chamber.

Redwood does not absorb the odor from the hatching eggs. Cheaper woods, and pasteboard lining in iron and tin machines, retain the odors, to weaken and kill the hatching chick.

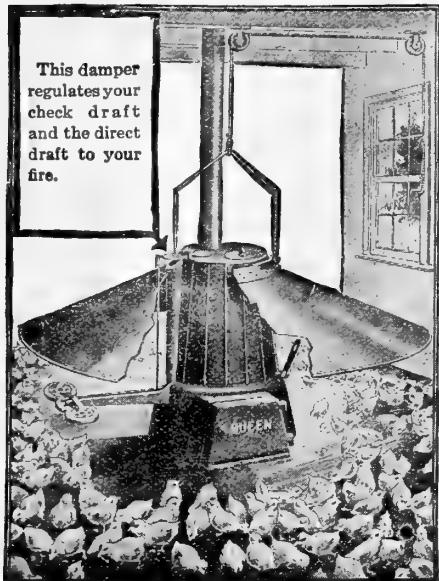
Queen Incubators are not cheap, but they are cheap in the long run. They will be turning out good hatches years after the cheap machines have been junked.

The **Queen** line has all copper heater and pipes.

SIZES AND PRICES

No. 0 Lincoln—60-egg size.....	\$12.00	No. 1 Queen—85-egg size.....	\$19.50
No. B Lincoln—135-egg size.....	20.50	No. 2 Queen—135-egg size.....	27.50
No. C Lincoln—160-egg size.....	27.50	No. 3 Queen—180-egg size.....	32.50
No. 20 Style K—70-egg size.....	16.50	No. 4 Queen—275-egg size.....	42.50
No. 21 Style K—130-egg size.....	27.50	No. 5 Queen—400-egg size.....	52.50
No. 22 Style K—220-egg size.....	36.00	No. 25 Queen—550-egg size.....	75.00

ASK FOR FREE CATALOG



This damper regulates your check draft and the direct draft to your fire.

QUEEN BROODERS

The Queen Colony Brooder is a new and improved design of brooder stove. It is made of highest quality iron castings that will wear and last indefinitely.

There are no drafts on the smoke pipe of the Queen. The check rests on top of the stove and opens outward when fire is too warm, thus giving a gentle inflow of air to retard the heat. While the opening of the draft to increase the fire is located at the top of the stove, it opens into the fire at the base through an opening extending down the side to the bottom. This feeds the draft into the fire from underneath with no opening below the hover.

As will be seen from the illustration, the check and draft lids are cast together and operated together. Thus, when the fire is too hot, the wafer expands and closes the draft and opens the check, both at the same time. When it is too cool the wafer contracts and closes the check and opens the draft. This keeps an even heat all the time, both night and day, in cold weather or warm, and does it automatically. You don't have to pay any attention to it whatsoever. Just set the regulator for the proper temperature at the start of the season—it will do the rest.

SUPERIOR QUEEN GRATE

The grate in the Queen stove is the rocker type and strikes the fire at four points. This is far superior to any draw center or shaker grate, because it cleans the fire thoroughly, and by striking at four points will break up and remove all clinkers.

COLLAPSIBLE HOVER

The hover used on Queen stoves is collapsible and made of four pieces of galvanized iron. This hover comes knocked down, with holes punched and stove bolts attached, ready for putting together. By being collapsible, it enables you to save room when storing, and lessens the danger of damage, when not in use.

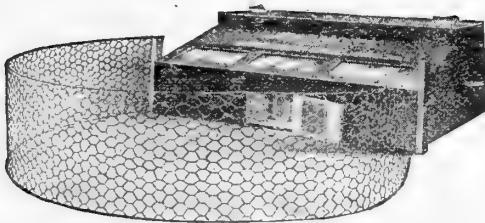
BURNS ANY KIND OF FUEL

The Queen stove burns any kind of fuel with equally satisfactory results. We recommend chestnut sizes in all kinds of fuel and hard or soft coal, coke, charcoal, or briquettes burn equally well. Of course, hard coal will not cause the pipe to become dirty as quickly as the others, but it will give no better heat.

No. 1—600-Chick Size, \$19.75

No. 2—1200-Chick Size, \$24.75

QUEEN INDOOR LAMP-HEATED BROODER



ber is used throughout, corner joints and floor mortised and lock nailed. The floor is tongued and grooved and driven up, being held rigidly in place by the framework which forms a band around the floor.

The lamp is encased in a sheet iron box directly under the heater drum. The heat from the lamp enters into the tight drum, from which it is distributed through the radiating surface into the brooding chamber. The escape pipes, protected by a windshield on the outside, to prevent the gases and air being blown back into the brooder.

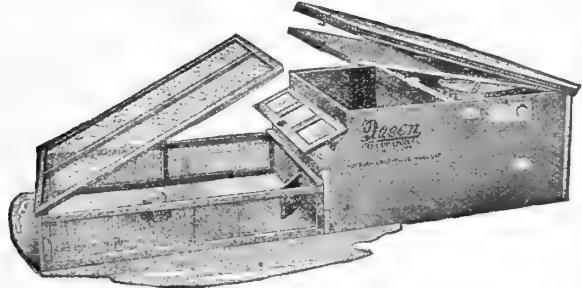
The floor within the brooder slopes slightly upward from the front, the highest part of the slope coming under the heating drum. In this way fresh air is provided from the lamp, which is in a separate compartment and does not rob the brooder chambers of the fresh air needed for the chicks.

The floor space is divided into two compartments like in outdoor lamp-heated brooder, partitioned off by a heavy felt slitted curtain, which is removable, therefore allowing the chicks to select their own temperature. Two doors are provided at the top, one of which is glass, in order to admit light. Opening these doors makes easy the way to thoroughly clean the brooder.

No. 7—125-chick size, shipping weight, 65 lbs.....	\$19.00
No. 8—165-chick size, shipping weight, 78 lbs.....	21.00
No. 9—250-chick size, shipping weight, 80 lbs.....	23.00

QUEEN OUTDOOR LAMP-HEATED BROODER

Queen Indoor Brooders are made of the same selected, high-grade lumber that is used to construct the outdoor brooders, and painted with two coats of paint. One-inch lum-



edges are mortised and lock nailed. The floor is tongued and grooved and driven up, being held rigidly in place by the framework which forms a band around the floor.

The Queen Outdoor Lamp-Heated Brooders are designed to raise the chicks in all kinds of weather at any time of the year with insurance for success. They can be relied upon to give the little chicks the protection they need both day and night.

The Brooder is constructed of one-inch, high-grade, thoroughly seasoned lumber with mortised corners that are bound with galvanized iron and covered with two coats of paint. The heating system gives an abundance of heat, while the ventilation system provides an abundance of good, fresh air. All the gases and fumes from the lamp are discharged from the drum through pipes to the outside of the brooder, the outlets being provided with wind guards. All parts of the heater are made of heavily galvanized steel and can be removed, without tools, to be cleaned.

The brooder has two floors of tongued and grooved material. Under the heating drum the floor is cut away and a galvanized pan substituted which can be filled with earth or sand and, being removable, is easily cleaned. The upper floor is divided into two compartments, the brooding room and the sun parlor, and is divided by a heavy felt curtain slit so that the chicks can easily pass through. The sun room is lighted with panels of glass, set in a hinged frame, so that in bad weather a place in which the chicks can exercise, eat, and scratch in safety is assured.

No. 10—125-chick size, shipping weight, 131 lbs....	\$29.00
No. 11—165-chick size, shipping weight, 141 lbs....	31.50
No. 12—250-chick size, shipping weight, 184 lbs....	34.00

WATER GLASS

Put up expressly for packing away eggs, when they are plentiful and cheap. During the summer months especially eggs are much cheaper than they are in the winter time. With this preparation you can pack them away, and have a supply of fresh eggs all winter. One gallon of this solution is sufficient to mix with enough water to pack away fifty dozen eggs. Use 1 part Water Glass to 9 parts of water.

At a cost of only one cent a dozen, you will be able to save anywhere from fifteen to thirty cents on the dozen, and have the satisfaction of having your own eggs.

PRICE:

1-quart can	\$.35
1-gallon can	1.00
3-gallon can	4.00

KEROSENE OIL

FOR INCUBATORS AND BROODERS

One of the most difficult things for a poultryman to secure is a good grade of oil to use in incubators and brooders.

We have had so many complaints from this cause that we have deemed it expedient to put up a high-grade oil to assist them in this trouble. You will not be able to appreciate the difference till you have tried a can of this oil.

Put up in five gallon shipping cans.
Price..... \$2.50

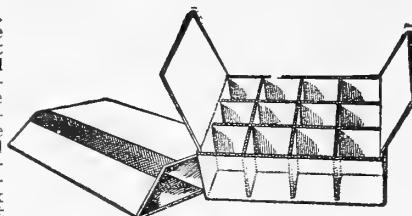
EXPRESS AND PARCEL POST PACKAGES

PARCEL POST EGG BOXES

Eggs need protection. This shipping package is so constructed that the eggs are separated by a thickness of corrugated board and the entire contents are surrounded by a double wall of air-cushioned corrugated board. Absolute protection is therefore assured, as the box possesses sufficient strength and durability to stand the usual rough handling in transit. Their extreme light weight, when compared with other packages, will, in many cases, save the postage for an extra pound. Fold flat for shipment.

Eggs—For shipment in zones each Egg must be wrapped with cotton, excelsior, newspapers, tissue paper or material of a similar nature when shipped in our boxes and box so wrapped that nothing can escape from the package. Any commercial wrapping paper is acceptable.

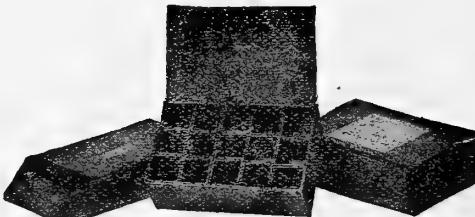
Eggs—For LOCAL DELIVERY our boxes are all right without additional wrapping inside or outside.



Boxes holding 1 doz.	\$1.35 doz.
Boxes holding 2 doz.	1.80 doz.
Boxes holding 3 doz.	2.25 doz.
Boxes holding 4 doz.	3.00 doz.
Boxes holding 5 doz.	3.60 doz.

ANDERSON EGG BOX

For Fancy Eggs for Hatching.



The Anderson Egg Box is made of corrugated paper and has double-faced corrugated paper partitions like the Eyrie, to protect each individual egg. The ability of the Anderson Egg Box to fold flat enables us to ship them in a knocked down condition, third-class freight. They take but little room in storage and are very easy to set up. By sealing the box with gummed strips which we furnish, pilfering or substitution of common eggs for fancy eggs while in transit is eliminated.

PRICES.

	Shipping Weight.	Per Dozen.
1 Setting	10 lbs. per doz.	No. 3, \$2.50
2 Setting	13 lbs. per doz.	No. 4, 3.50
50 Egg Size.	24 lbs. per doz.	No. 5, 4.50
100 Egg Size.	45 lbs. per doz.	No. 6, 7.50

This box may be used either Parcel Post within weight limit or Express.

Use string instead of sealing strips for Parcel Post.

THE SEFTON LIVE CHICK BOX

Shipped Crated to Save Freight.

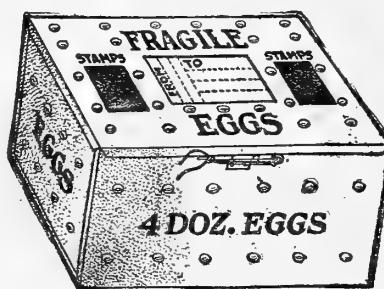
	Per Dozen.
25 Chicks. Size, 12x 6x5	\$2.50
50 Chicks. Size, 12x12x5	3.50
100 Chicks. Size, 24x12x5	5.00

BOXES FOR FRESH EGGS FOR THE MARKET TRADE

This is not a Parcel Post or Express Box, but is intended for counter and private use. Any one selling eggs will find this box a great convenience, as it obviates any mistakes in the count and also avoids any breakage.

Delaware Egg Boxes, two rows for 12 eggs, per 100.	\$1.50
Eagle Egg Boxes, three rows for 12 eggs, per 100.	1.20

METAL EGG CRATES FOR PARCEL POST



Solve the problem of shipping eggs safely by Parcel Post. They are made for continued use, being strongly constructed but light in weight.

All crates are provided with built-in shock absorbers to give a cushion for the eggs. Fillers to hold the eggs are made for long life.

Metal Egg Crates do not require outside wrapping for mailing. A short string only is needed for tying "pin" which holds lid securely closed.

Buy your eggs direct from the producer, "strictly fresh," delivered to your door by Parcel Post. The total cost, including postage, will be less than from your grocer.

This "Safety First" egg carrier will pay for itself in a few shipments by eliminating the loss in breakage so frequent when shipped in the short-life paper cartons. It will prove itself to be a profitable investment.

Postage is no more than for other egg carriers.

2 Dozen Egg Size.	\$.90
3 Dozen Egg Size.	1.10
4 Dozen Egg Size.	1.35
5 Dozen Egg Size.	2.00
6 Dozen Egg Size.	2.00
2 Dozen Eggs and container for 7 lbs. Butter, etc.	1.35
1 Dozen Eggs and container for 3½ lbs. Butter, etc.	1.35
2 Dozen Eggs and container for 3½ lbs. Butter, etc.	1.60

HATCHING SIZES

Size	Per Dozen
15 egg size.	\$3.00
20 egg size.	4.80
25 egg size.	4.40
50 egg size.	7.75
100 egg size.	15.25
Duck.	3.25
Goose.	4.00

PARCEL POST BOXES

Size	Box
1 doz. size.	.25
2 doz. size.	.40
3 doz. size.	.50
4 doz. size.	.65
5 doz. size.	.75
6 doz. size.	.85
8 doz. size.	1.00

BANNER ROOT CUTTERS



Banner No. 7

No. 7

EXCLUSIVELY FOR POULTRY

It cuts fast and is easy running. Leaves the feed in fine brittle, ribbon-like strips that make choking impossible. Fowls large or small can safely eat the feed. The knives are adjustable and made of the very best of steel. An iron grate in bottom of hopper lets dirt and gravel escape before reaching the knives. In this cutter we offer the poultrymen a low-priced, high-grade, nicely-finished and mechanically constructed machine, and feel that anyone who desires to feed Roots and Vegetables to their flocks can well afford to own one. Two to five minutes will cut enough feed for a large flock of birds.

Price, \$6.50.

BANNER NO. 28

A New Root Cutter. A Shredder. Using the Patent Banner Knife. For Poultrymen, for Sheepmen, for Stockmen.



Banner No. 28

A Root Cutter that cuts all roots and vegetables like **Beets, Carrots, Potatoes, Onions, Apples, Turnips, Cabbage** or anything else of the same nature into ribbons, literally shredding the material into feed cut so fine that all stock and poultry can feed without danger of choking. Built strong and stout to stand power use, and furnished with a crank so it can be used by hand also. This cutter has a large capacity, is supplied with eight steel knives. It has a heavy cast iron Platter Wheel, 28 inches in diameter to which the knives are attached by bolts. The hopper is such

shape that the machine cannot possibly get away from the knives until they are all cut. **A grate** in the bottom of the hopper allows the dirt to escape before going to the knives. This cutter is designed more particularly for power use for the large Poultrymen and Sheepmen. Weight of machine complete, 150 pounds. Capacity of hopper about $2\frac{1}{2}$ bushels. Speed by power 125 to 150 Rev.

Price, Complete, with Pulley and Crank, \$20.00.

BANNER NO. 20

The No. 20 Banner Root Cutter. It is made for hand power. It has a capacity of 30 to 50 bushels per hour, although it will cut at the rate of a bushel a minute easily on the test.

It is well built, nicely finished, runs easily, feeds itself, separates the dirt from the cut feed. **PRICE, \$13.50.**

BANNER NO. 25—FOR HAND OR POWER.

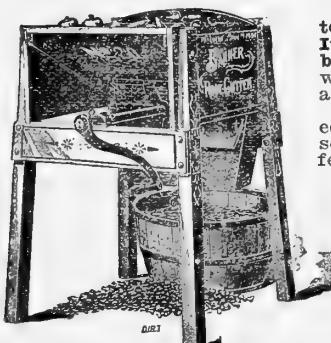
This is a new style machine.

It can be used by hand or light power. Is very strong and durable. Capacity 30 to 60 bushels per hour.

Weight, 100 lbs.

Price with crank.... \$13.50

Price with pulley and crank..... 15.00



Banner No. 20

BANNER NO. 16
A GRAND MACHINE FOR HAND AND POWER USE—

Supplied with crank also for hand use. Capacity by hand, 30 to 50 bushels per hour. Weight, 150 lbs. Capacity by power, 2 to 3 bushels per minute. **Our Retail Price, \$20.00.**

NO. 35—BANNER ROOT CUTTER.

Heavy construction for hand or power, weight, complete, 185 pounds; capacity of hopper about 3 bushels.

This is a cylinder type cutter and is made strong to stand power. The hopper is large and deep. The Cutting Drum to which the knives are attached is strong and will not break or wear out. It is positive feed as the roots lay on top of the Cutting Drum. It has 30 gouge-shaped knives.

Price, complete, with Pulley and Crank..... \$22.50

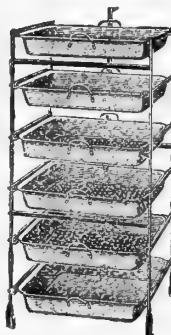
NEW BANNER "30" ROOT CUTTER

Turns easily by hand. At 60 revolutions, the knives hit and cut the roots 1800 times. The result being at a low estimate 1½ to 2 bushels per minute of cut feed. Cut feed left in long half round slices that has made the **Banner Root Cutter** a popular machine for this work for 20 years.

Weight 175 to 190 lbs.

Price, \$27.50.

ECONOMY OATS SPROUTER



Its use means sure increase in your production of eggs.

SPRING FOOD CONDITIONS SECURED IN MIDWINTER.

The feeding of sprouted oats is no longer an experiment. Experience has proven time and again its value as a food for stimulating egg production. Oats sprouted in the right manner, furnish food most nearly akin to the fresh, green growth of Springtime, the prolific laying time of the year. By feeding sprouted oats through the winter, egg production can be kept up to a much larger degree than otherwise.

THE ECONOMY OATS SPROUTER employs the natural process for sprouting. It has a natural drainage, and is effective and economical to the highest degree. You want more production from your chickens. Get and use an **ECONOMY OAT SPROUTER**, and you will increase your production many per cent. Contains five Sprouting Pans and one Drip Pan 16x18 inches. Will not rust. Lasts a lifetime.

No.	1
Inches	35x18x18
Price, each.....	\$5.50

The Norwich Automatic Exerciser and Feeder

The machine consists of a hopper of sufficient size to carry a week's supply of grain for a flock of corresponding number. Has adjusting valve feed working in conjunction with an agitator disc.

The Feeder is operated by the birds, the feed being deflected in a circle some distance from the feeder keeps the birds in constant exercise.

Being mounted on legs, it can be used either in the house or out of doors.

No. 1—8-qt. hopper, 13 lbs., \$3.00

No. 2—14-qt. hopper, 15 lbs., 3.90

No. 3—20-qt. hopper, 20 lbs., 4.90

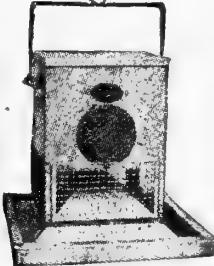


Coates Automatic Feeder and Exerciser

Insures Larger Profit to Poultrymen.

These feeders are made of galvanized iron, and will last a lifetime. They are perfectly constructed, and never fail to give satisfaction. Rats and mice cannot get at the food in these feeders. They require no floor space, being suspended from the ceiling. Hens eat from all sides. Exercise means larger egg production, and at the same time keeps flock healthy.

No. 2—Cylinder-shaped, for hens, capacity 10 qts.....	\$2.00
No. 3—Square-shaped, for hens, capacity 20 qts.....	3.50





NESCO CONE-SHAPED DRINKING FOUNTAIN.

This fountain is made from sheet iron heavily galvanized after it is made, this assures long life, as there cannot be any exposed parts where the galvanizing is peeled off. It is so constructed that the chickens cannot get on top of it or knock it over.

1 Quart.....	\$.30	Dozen.....	\$3.50
2 Quarts.....	.35	Dozen.....	4.00
4 Quarts.....	.50	Dozen.....	5.50
8 Quarts.....	.75	Dozen.....	8.50

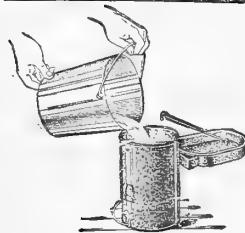


NESCO ECONOMY CHICK FOUNTAIN

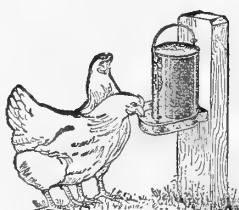
An excellent fountain for the little chicks. Enough clean water all the time, but chicks cannot get into the pan.

No.	9
Diameter Pan, inches.....	5
Height, inches.....	4

Each..... 20c.



Grey Granite Keystone Fountains



The construction of this fountain has made it the favorite, and it is now considered the most practical, convenient and best made on the market.

Drugs are now commonly used in the drinking water for Poultry to prevent diseases. Drugs cannot be used in galvanized vessels on account of the chemical action on the metal, and it has been necessary to have extra drinking vessels in order to use them.

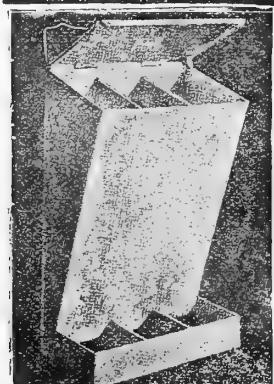
By using our **GREY GRANITE KEYSTONE FOUNTAIN** you can use drugs in them whenever you desire and they will not affect the finish or metal.

1 Quart (Granite or Galvanized).....	\$.50
2 Quarts .....	.75
4 Quarts	1.00
8 Quarts	1.50



BEEF SCRAP HOPPER

This hopper is made of heavy galvanized iron, with lid, handle, sloping bottom and extra deep apron with guard. Taper is from the top down, being larger at the bottom. It will feed beef scrap and dry mash, articles that every user of hoppers knows are difficult to feed. This hopper is a sure and safe feeder, and will not clog. All joints riveted or seamed. Capacity, 10 pounds scrap. Price, each..... \$1.00



Galvanized Iron Grit and Shell Boxes

Having three compartments, this hopper is very convenient, as you can feed different size shell or grit at the same time.

Made from heavy galvanized steel.

Price, each..... \$1.25

FEED AND DRINKING CUPS

GALVANIZED

Especially Suitable for Exhibition Coops.
Nos..... 0
Inches... 4 3/16x3 1/8x2 1/4 5 1/8x3 1/2x2 1/2
Price, each. 25c. 30c.



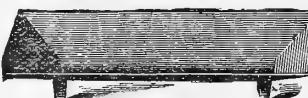
WATER PANS



For Pigeon Baths, Etc.

Better than Stone Jars where used in freezing temperatures.
Nos..... 12 14 16
Inches.... 12x3 1/4 14x3 1/2 16x3 1/4
Price, each... 65c. 75c. 85c.

IRON POULTRY TROUGHS



This is an indispensable article for persons raising poultry. Is readily cleaned, and no leaking.

No.	Top.	Depth.	Length.	Weight.	Price.
1 W	3 1/2"	1 1/2"	7 1/2"	3 lbs.	\$0.50
5 W	3 1/2"	1 1/2"	19 "	6 1/2 lbs.	.90
6 W	6 1/2"	2 3/4"	22 "	12 lbs.	1.30
9 W	6 3/4"	2 3/4"	29 "	18 lbs.	1.50

The No. 1W Trough is provided with a lid having three holes, from which chicks can eat the meal without wasting.

GALVANIZED IRON POULTRY TROUGH



The above cut illustrates our new Galvanized Cast-Iron Poultry Trough with lid, making it the best thing of its kind on the market. We sell same both with and without lid at prices given below.

Length, Inches.	Width, Inches.	Price, With Flat Lid.	Price, Without Lid.
6	3 1/2	\$.60	\$.55
12	3 1/2	.75	.60
18	3 1/2	.90	.80
22	6	1.50	1.40
29	6	1.80	1.65

With Arched Lid.

22	6	\$2.10
29	6	2.40
36	6	3.00
48	6	3.60



DRY MASH HOPPERS



These hoppers are made from heavy galvanized iron, and are so constructed that they can be closed up at nights to keep out mice and rats. They are also provided with a screen to prevent the chickens from scratching the mash out and wasting it.

It not only saves the feed but keeps it before the fowl where they can get as much as they should have. Made in two sizes.

12-inch.....	\$2.00
18-inch.....	2.50

THE LAWN PARK COOP



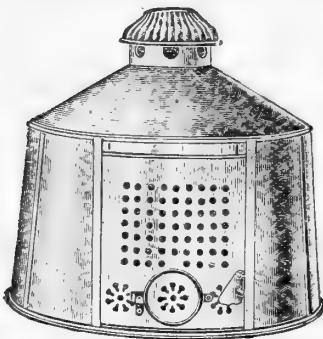
It is made entirely of galvanized material, will not rust and is proof against all chick enemies. The body of coop is made from strong 28 gauge galvanized steel, the wire park is made from heavy $\frac{1}{2}$ -inch mesh galvanized wire screen.

The Lawn Park is large and roomy, being 18 inches wide, $19\frac{1}{2}$ inches high and 24 inches long, with park closed and 48 inches long with park extended.

Gives absolute protection to chicks, permits chicks to grow and thrive nature's way.

PRICE \$4.00

ROUND AND SQUARE COOPS



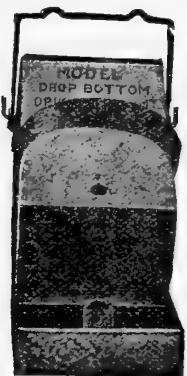
The **Bottom** is entirely separate from the **Top**. It is raised up just inside the edge around which the **Top** rests. Thus water cannot beat in. It can be removed, washed clean and replaced quickly and easily. The **Ventilator** on the top can be opened wide, or only partly, as desired. The **Door** lifts up, and when wide open the **Lock** falls into place to hold it securely open. The little round **Chick Door** gives runway for the chicks, and when closed absolutely excludes rats.

Bottom diameter, 20 inches; height, $18\frac{1}{4}$ inches.

Price, Round Coop \$3.50

Price, Square Coop 3.00

SQUARE DROP BOTTOM DRINKING FOUNTAIN



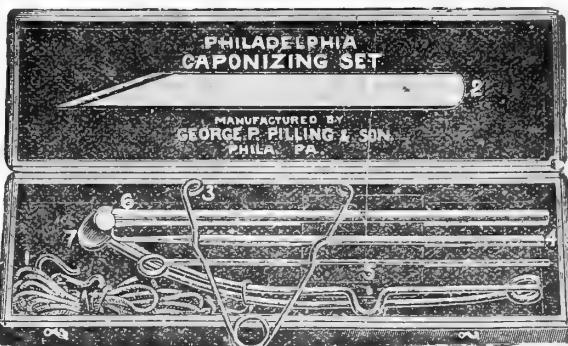
This fountain is easy to clean and fill; keeps water fresh and cool at all times, and was designed to provide the poultryman with a labor-saving wall fountain that could be opened for filling and cleaning.

To fill the fountain the bottom is unlocked and swung back, the reservoir is inverted, filled and swung back into place, and is ready to hang on the wall. A neat handle is provided for carrying; the guard prevents the chickens from soiling the water.

The basin is hinged to the reservoir at the back, and the pin of the hinge is brass, which prevents rust. Made in three sizes.

2-quart.....	\$.90
4-quart.....	1.30
8-quart.....	1.60

CAPONIZING TOOLS



You can do your own caponizing easily with this set of tools. Each tool is made for this especial work, and are of the highest grade. These sets are packed in a neat wooden box.

Philadelphia Set

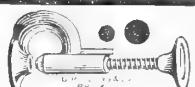
Farmer's Set

LANSDOWNE POULTRY MARKER



This poultry marker makes the hole without the least exertion. It is made of high-grade steel, nickel-plated. Large or small size, 25c.

PHILADELPHIA POULTRY MARKER



For marking young and old chickens. Made in two sizes, for large or small chicks. Sent by mail on receipt of price, 25c.



French Poultry Killing Knife

Expedient and humane way of killing and dressing poultry. Price, with instructions, each, 75c.

BETTY'S PERFECT POCKET POULTRY PUNCH

PRICE, 25c.

PHILADELPHIA GAPE EXTRACTOR, 25c each



PORCELAIN NEST EGG

The best and cleanest nest egg used. Each, 5c. Dozen, 25c. By mail, 50c.

LICE KILLER AND NEST EGG

COMBINED IN ONE.

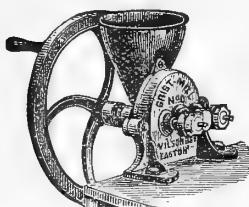
Lasting, effective. Not expensive. Does not affect the flavor of the egg nor injure it for hatching. 70c. Dozen.

Climax

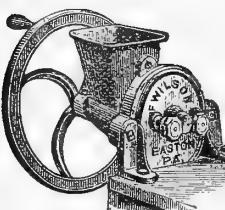
LEG BANDS	Aluminum	Celluloid
	Per dozen.....	\$.20
	Per 50.....	.60
	Per 100.....	1.00

WIRE HEN NESTS

Each..... 20c. Per dozen..... \$2.00

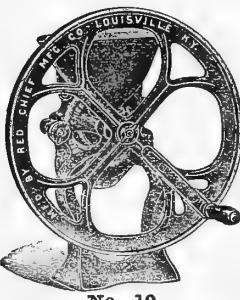
WILSON No. 0 FAMILY GRIST MILL

This mill is especially made for grinding Graham Flour or Corn-meal; can be adjusted for cracking grain if desired. Weight, 30 lbs. Price, \$6.75. With Iron Stand, Price, \$9.75. Weight, 65 lbs.; diameter of hand wheel, 20 inches.

**WILSON No. 1 BONE AND SHELL MILL**

No. 1—Grinds oyster or clam shells and dried bones, and is an excellent mill and largely used. Will also grind corn.

Weight, without stand, 33 lbs. \$6.75
Weight, with stand, 64 lbs... 9.75

**Red Chief Grinding Mills**

No. 1—For Small Poultry Raisers. Price..... \$4.00

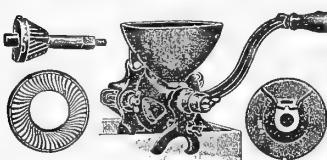
No. 2—Best Crank Mill on Earth. Feed gauge to regulate grinding. Price... 5.00

No. 5—with large capacity, feed gauge and fly wheel. Clamps to box. Price..... 7.00

No. 10—with feed gauge, fly wheel and handsome stand to screw on table. Price..... 8.50

No. 12—Best Hand Mill on Earth; bronze boxes, steel axle, large fly wheel. Price..... 14.00

No. 15—Power Mill for one-horse engine; strong, durable and easy running. Price.. 14.00

**No. 20 Red Chief Grinding Mill**

No. 20

COMBINED HAND AND POWER MILL.

No. 20.—Power Mill for two-horse engine; tight and loose pulley, best of bronze boxes and cold rolled steel axle, capacity 10 to 20 bushels per hour. Has no equal. Price

Corn Sheller Attachment, shells the corn and grinds at the same time. Price extra..... \$9.00

Table Meal Separator, makes fine table meal while grinding stock feed. Price extra..... \$6.50

All burrs are as hard as can be made, and all of our mills will grind in a satisfactory manner dry bone, oyster shells, old china, etc. New Feed Gauge enables the operator to grind fine without mill turning hard. New Burrs will grind fine and quick.

**BLACK HAWK FEED AND GRIST MILL**

Just the thing for cracking corn, etc., for poultry. Makes best Graham flour and meal for table use.

Grinds corn, wheat, rye, rice, spices, etc. Weight, 17 pounds. Price....\$4.00

MANN'S GREEN BONE CUTTER**LATEST MODEL.**

The feed is both automatic and self-governing. Cuts all gristle and meat. Nothing escapes uncut.

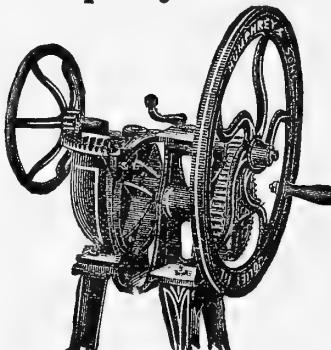
No. 5C.—This machine is exactly the same as the No. 5B, with a crank handle instead of a balance wheel. Capacity not quite equal to 5B. Weight, 35 lbs. \$11.00

No. 5B.—This machine is exactly the same as the No. 5BM, except that it has not the iron stand. The capacity is the same. Weight, 60 lbs..... \$14.50

No. 5BM.—Intended for flocks of 15 to 25 hens. Mounted on iron stand. Cylinder 6 inches diameter, 4 inches deep. Cutter plate has 4 knives instead of 3..... \$18.50

No. 7.—Intended for flocks of 40 to 100 hens. Mounted on strong iron stand with large table for box or pan to receive cut bone. Weight, 107 lbs. Cylinder, 7½ in. in diameter, 5¼ in. deep. Capacity, ½ to 1 lb. per minute.... \$21.25

No. 11.—Intended for large flocks of over 100 fowls. Capacity 100 lbs. per hour. Horse-power required, 1 to 1½. Weight, 215 lbs. Diameter of pulley, 15 inches; 3½-inch face; speed of pulley, 300 to 350 revolutions per minute. Capacity, 100 lbs. and upward per hour. \$46.00

Humphrey Green Bone and Vegetable Cutter

The knives of the Humphrey Cutter act upon the shear principle, producing granulated cutting. No. 2½ is the same machine as No. 2, with the addition of a hand wheel, making it both a hand and power machine.

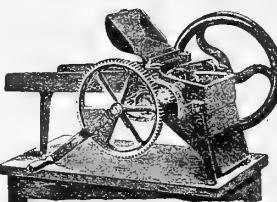
No. 1—Hand Power... \$18.50

No. 2—Semi-Power .. 22.00

No. 2½—Hand and

Power 25.00

No. 6—Direct Power.. 30.00

POULTRYMAN'S CLOVER CUTTER

Designed for cutting, either green or dry, such growths as clover, alfalfa, vegetable tops, etc. These growths are the cheapest and most productive egg-forming poultry foods for cold weather.

With four 7-in. knives, weight K. D., 60 lbs... \$16.00

"Black Hawk" Corn Sheller

Weight, 14 lbs. Shells Fast, Clean and Easily.

Black Hawk is simple, easily adjusted and will shell clean all kinds of field corn.

Our Special Price, each, \$3.50.

1903
BLACKHAWK
CORN SHELLER

HOME CANNING BOILER A CANNING FACTORY IN EVERY HOME



Home Canning Boiler, \$22.00

fit can be furnished at an extra cost of \$18.00, and consists of gas-line blast furnace, two-round capping irons and two tipping coppers.

"El Flo" Safety No. 16 Canning Outfit

The "El Flo" Safety No. 16 Canner has been the choice with the Government Home Demonstration Agents for several years. It is, as shown in photograph, very compact and neatly constructed. Is especially convenient in moving from one canning club to another, being easily carried in car or buggy. Also popular among many small families, and while it is our smallest capacity outdoor canner, the results are just as satisfactory as that of any outfit we make. The "El Flo" Safety No. 16 Capacity at each filling, 16 No. 3 Cans or 8 Jars. Daily Capacity, 160 to 275 No. 3 Cans of average fruits or vegetables. The Outfit includes the following accessories: One Reversible Capping and Tipping Steel, one Safety Tray, two Tray Lifters, Tongs, Acid Brush, Close Fitting Cover, 2 Joints of Piping, 1 Elbow, 4 Legs, and "El Flo" Processing and Instruction Book. Height 20-in., Width 10-in., Length, 18-in. Finished in Aluminum. Weight, fully complete, 35 pounds.

No. 16 "El Flo" Safety Canner, Complete, \$12.00.

THRIFT JARS AND SEALER



Thrift Jars offer you the following advantages over all others:

1. Wide mouth—
2½ inches.

2. Sealed before processing—no hot jars to handle after cooking.

3. Fresh ring in each cap—and no chance of ring slipping out of place.

4. Entirely eliminates spoilage—if properly used you can put up the different things like lima beans, corn and meats as easily as you do tomatoes.

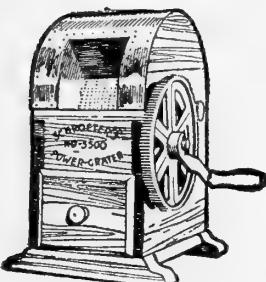


5. No opener needed—simply tear off cap.
6. Made of clear white glass—a great advantage where product is for sale or display. Made in the following sizes:
No. 32—19 fluid ounces capacity.....\$1.25 per doz.
No. 33—1 quart capacity.....1.40 per doz.

THRIFT SEALERS, \$10.00.

Price includes Cap and is f. o. b. Baltimore.

Horse Radish Grater



This Grater is designed for hand power only. Is constructed of wood, excepting Grating Drum, the sides of which are iron bolted together over which our Patent Double Grating Drum is riveted.

The Horse Radish which is grated in this machine is light, short and flaky, not like the Horse Radish which is put through a meat chopper. Besides horse radish this machine will grate equally as well the following: Cocoanut, Potatoes, Bread, Turnips, Carrots and vegetables of all kinds.

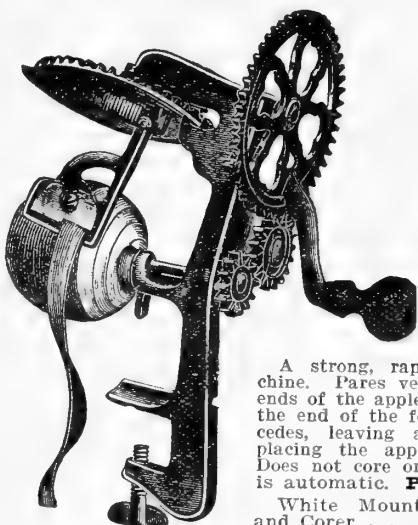
PRICE, \$30.00.

Will successfully can fruits and vegetables in either tin cans or quart glass jars.

The boiler will hold 24 tin cans or 14 Mason quart jars at one loading. The work can be done on an ordinary cook stove or range. With every boiler is sent a complete set of instructions and recipes for putting up the ordinary fruits and vegetables. These are the regular canning factory recipes.

The instructions are so simple that any one with ordinary intelligence and a little precaution can put up canned goods in as good shape as the finest equipped factory.

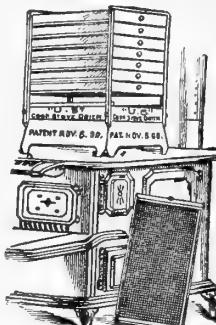
The complete outfit consists of boiler, steam gauge, safety valve and crate. Weight, 80 lbs. For persons preferring to use tin cans, a soldering outfit.



A strong, rapid durable machine. Pares very close at both ends of the apple. When passing the end of the fork the knife recedes, leaving ample room for placing the apple on the fork. Does not core or slice. Push-off is automatic. Price, each, \$1.25.

White Mountain Parer and Corer 1.00

COOK STOVE FRUIT DRIER



To meet the demand for a small Drier, suitable for use on any ordinary room, kitchen, cook or gasoline stove, we offer the U. S. Drier. It is a very simple, economical, efficient and convenient arrangement, and for farmers use just what is wanted, a durable drier at a reasonable price.

Thousands of housekeepers will have frequent use for just such an article as this, for making quantities of dried fruit, berries and vegetables for their own use or for sale. It is the most satisfactory and profitable investment you could make. A lady can easily lift it off the stove as it weighs but about twenty pounds. It has interchangeable galvanized wire-cloth trays which will not rust or discolor the fruit, etc., and will last for years. It is made from iron, except tray frames and supports. Its capacity is ample for domestic use, being greater than some machines which sell for \$15 to \$20.

Dimensions, 26 in. high, and takes up space on stove, 21 x 15 inches.

Our Special Price.....\$7.50

SLIDING KROUT CUTTER



Sliding Kraut Cutter With Two, Three or Four Knives.

These Kraut Cutters are constructed on the same principle, but are a decided improvement on the old style machine. Each knife is independent of the other and can be quickly adjusted.

In the old style kraut cutters the knives could rarely be adjusted just right, and if they were, they probably refused to stay. These Cutters are made of heavy hardwood and are fitted with a hardwood box which runs in grooves. Knife perfect, being controlled with $\frac{1}{4}$ -inch round-head stove bolts.

No. 50—2 KNIVES, 8x26 inches	\$2.00
No. 55—3 KNIVES, 8x26 inches	2.50
No. 65—3 KNIVES, 9x30 inches	4.00
No. 70—3 KNIVES, 12x36 inches	6.75
No. 80—4 KNIVES, 13½x40 inches	7.50

THE UNIVERSAL MEAT CHOPPER



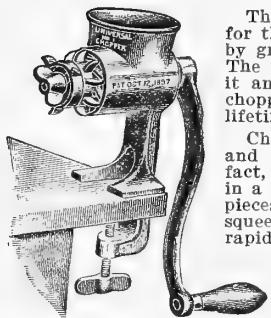
The Universal is the most perfect meat chopper on the market. The feed screw is so constructed that it feeds the meat to the knives without mashing it. The knives work against the plate giving a good clean cut, producing the best grade of chopped meat. The grinders are made in three numbers. The No. 331 has a plate that fastens to the table, as shown in illustration. The No. 333 has an arm that clamps to the table, similar to the No. 1 shown below. The No. 304 has a plate like the No. 331. These grinders are all heavily tinned and will not rust.

No. 331	\$5.00
No. 333	5.50
No. 304	8.00
Stuffing Attachment for Nos. 331 and 333	1.00
Stuffing Attachment for No. 304	1.10

Stuffing Attachment for Nos. 331 and 333.....

Stuffing Attachment for No. 304

THE UNIVERSAL FOOD CHOPPER



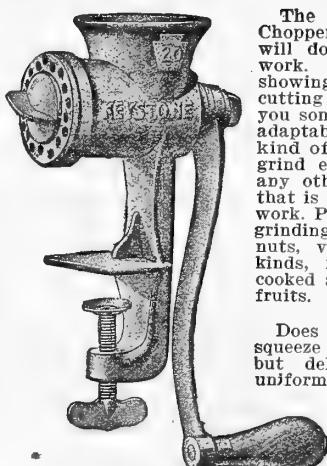
These two choppers are made especially for the kitchen, they will save many dollars by grinding up what ordinarily is wasted. The many uses that it can be put to makes it an indispensable kitchen utensil. These choppers are nicely made and will last a lifetime.

Cuts all kinds of meat, raw or cooked, and all kinds of fruits and vegetables—in fact, everything that is ordinarily chopped in a chopping bowl—into clean-cut, uniform pieces, fine or coarse, as wanted, without squeezing or mashing, and with great rapidity.

No. 0, Small Family, three cutters.....	\$2.00
No. 1	2.50

No. 0 and No. 1.

KEYSTONE FOOD CHOPPER



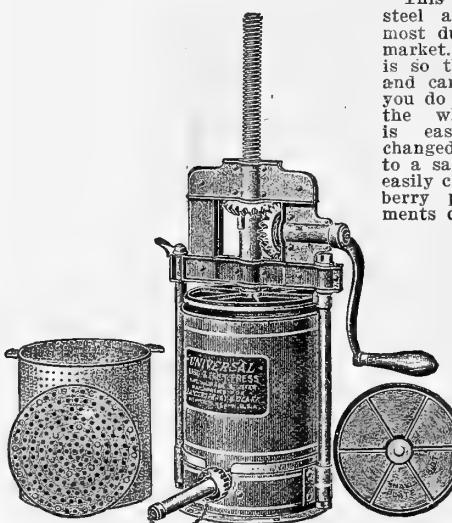
The Keystone Food Chopper is a wonder. It will do every class of work. The illustration showing the numerous cutting knives, will give you some idea as to the adaptability to every kind of work. It will grind every thing that any other grinder will, that is made for similar work. Pulverizing sugar, grinding crackers, bread, nuts, vegetables of all kinds, meats, raw or cooked and all kinds of fruits.

Does not mash or squeeze out the juices, but delivers clean-cut uniform pieces.

No. 10, weight 3½ lbs., will chop 1½ lbs. meat per minute. Price, each.....	\$1.50
No. 20, weight 4½ lbs., will chop 2 lbs. meat per minute. Price, each.....	1.85
No. 30, weight 6½ lbs., will chop 3 lbs. meat per minute. Price, each.....	2.50

Stuffing Attachment for No. 20 or 30 Chopper.....

UNIVERSAL ALL STEEL LARD AND FRUIT PRESS AND SAUSAGE STUFFER

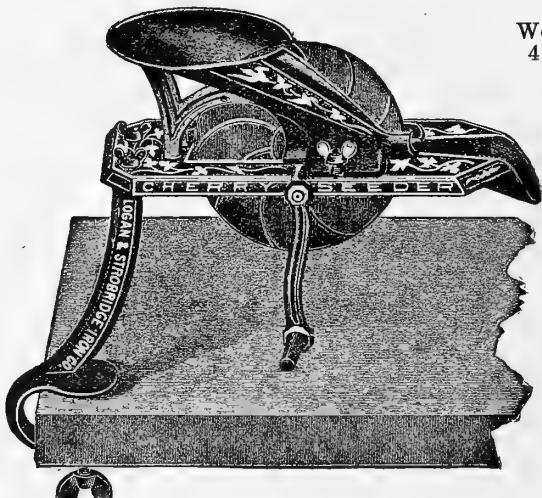


This machine is made of steel and is by far the most durable press on the market. The construction is so that it comes apart and can be easily cleaned, you do not have to handle the whole machine. It is easily and quickly changed from a lard press to a sausage stuffer. Also easily changed to a fruit or berry press. All attachments come with it.

This Machine is an unexcelled **Lard Press**, an equally good **Sausage Stuffer**, and is also extensively used for pressing the juices from fruit for making jelly, etc. The "Universal Steel Press" has many advantages over the old style cast-iron press. It is **unbreakable, rigid and strong**, and is more easily handled because it is lighter.

No. 44—4 quarts.....	\$13.25
No. 66—6 quarts.....	15.00
No. 88—8 quarts.....	16.00

CHERRY SEEDERS



Weight
4 lbs.

These cherry seeders are so constructed that they can be adjusted for different size cherries. They work very rapidly and do not tear up the fruit.

The No. 2 Seeder is made as shown in the illustration, having a long clamp arm that attaches to the table by means of a clamp screw. This arrangement gives ample room to place a dish under the seeder to receive the seeded cherries, as there is nothing in the way.

The No. 1 Seeder has four legs which screw to the table. Some users prefer this type.

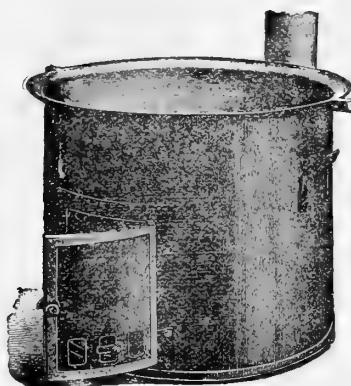
We can hardly conceive of a person sitting down and seeding cherries by hand when they could buy a good seeder at the price we are selling them.

Each seeder is nicely finished and japanned.

Price No. 1.....	\$1.00
Price No. 2.....	1.00

Stuffing Attachment for No. 20 or 30 Chopper.....

G. & T. BOILER AND FEED COOKER



Heavy cold rolled steel furnace; extra large feed door; wrought iron handles, firmly riveted on. Kettles smooth, heavy cast iron. Door, frame and flue collar cast iron. Never buckles or warps from heat; designed to set on ground or brick foundation; especially adapted for cooking feed, rendering lard, making soap, scalding hogs, poultry, etc. Cast iron flues are constructed inside, thus retaining heat and economizing fuel. We always ship furnace for wood fuel unless otherwise specified. Also used for lime and sulphur.

	Usual Rating.	Actual Capacity.	Diameter of Furnace.	Shipping Weight.	Retail Price. Furnace with Kettle, \$18.50
No. 3—30 gallons.	24 $\frac{1}{4}$ gallons.	26 inches.	160 pounds.	21.00	
No. 4—35 gallons.	30 gallons.	28 $\frac{1}{2}$ inches.	190 pounds.	22.50	
No. 5—40 gallons.	37 gallons.	29 $\frac{1}{2}$ inches.	200 pounds.	24.75	
No. 6—50 gallons.	45 gallons.	31 $\frac{1}{2}$ inches.	258 pounds.	33.00	
No. 8—65 gallons.	60 gallons.	34 inches.	325 pounds.	36.00	
No. 9—75 gallons.	72 gallons.	36 inches.	385 pounds.		

We always ship furnaces without firepot for coal unless otherwise specified. For wood fuel no firepot or grate is required, but for coal it is necessary to use firepot.

FIREPOT. Retail Price, \$7.50.

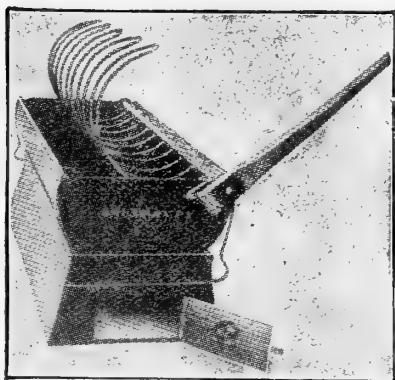
	Actual Capacity.	Furnaces Only.	Kettles Only.
No. 3—24 $\frac{1}{4}$ gallons.	\$12.00	\$ 9.00	
No. 4—30 gallons.	12.50	12.00	
No. 5—37 gallons.	13.00	15.00	
No. 6—45 gallons.	14.00	18.00	
No. 8—60 gallons.	16.00	24.00	
No. 9—72 gallons.	18.00		

SEPARATOR BOILER AND STEAM FEED COOKER

OUR STEAM BOILER will be found the best on the market. They are made in the most substantial and workmanlike manner. The material in its construction is the best boiler plate steel of 60,000 pounds tensile strength, and tested to 150 pounds hydrostatic pressure, securing perfect safety and ample capacity to users. The fire door is of ample size, and the grate so designed that any kind of fuel may be used. The boiler is the tubular type, the flues passing through the water, giving unusually large heating surface, and as durable and efficient as any engine boiler of same dimensions.

We can furnish these boilers in sizes from 2 H. P. up to 35 H. P.

Write for Special Catalog and Prices.



STEEL HOG SCALDING TANK

It takes the lead of anything on the market. When not used for scalding, can be used for feed cooker, boiling spray material, or for dipping sheep, can also be used for watering stock.

This outfit will save half of the time, and most of the hard labor in connection with Hog Killing, and will pay for itself in a very short time.

PRICE \$65.00

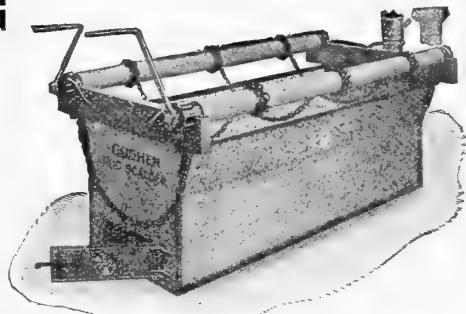
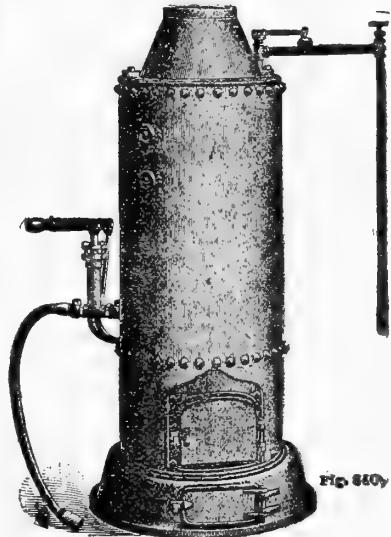
THE GOSHEN HOG SCALDER

It is substantially built and well braced. At the corners the sides and ends are flanged and riveted between heavy bar iron, which also answers for legs.

The center is supported with additional legs of angle steel. The material used is No. 20 Galvanized Steel with the exception of bottom of tank, which is No. 18. At either side of the top is a 4-inch hardwood roller, to which chains are attached, the rollers are provided with cranks and ratchets, to hold them in any position.

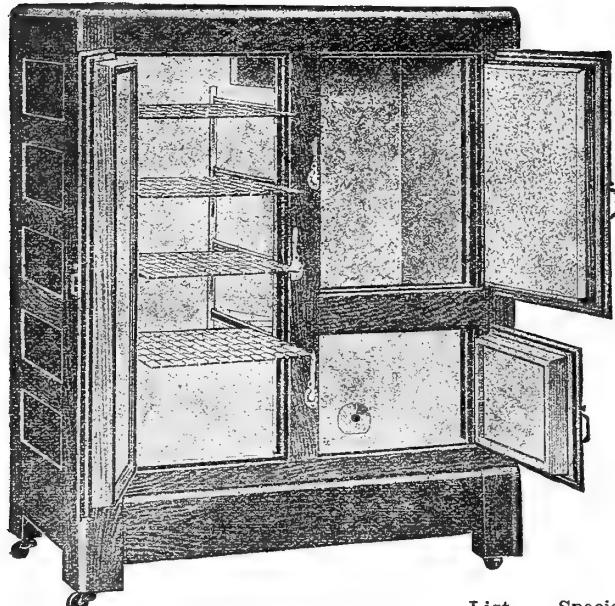
The fireplace is 24 inches wide and 9 inches deep.

The Scalding Vat is 30 inches wide, 68 inches long and 15 inches deep. Shipping weight, 200 pounds. Price, complete \$50.00



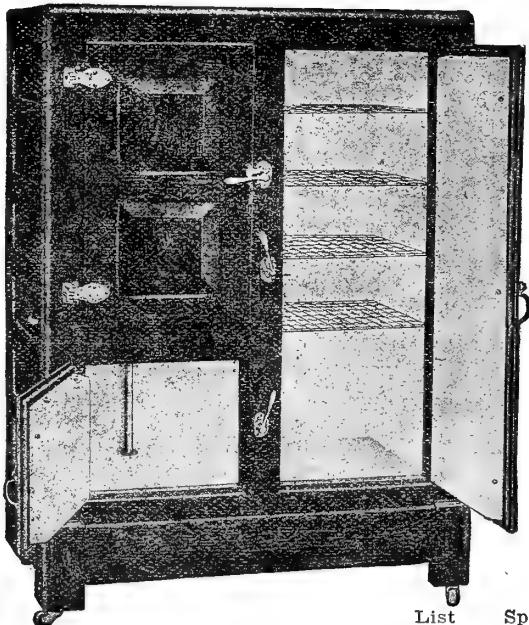
RANNEY REFRIGERATORS

"LAPLAND MONITOR" REFRIGERATOR
White Enamelled
Select Ash Lumber, Golden Oak Finish



No.	Lbs. Ice.	Length.	Depth.	Height.	List Price.	Special Price.
101E	100	32 in.	19 1/2 in.	45 in.	\$57.40	\$37.30
103E	130	38 in.	20 1/2 in.	48 in.	70.25	45.75

ONE-PIECE PORCELAIN REFRIGERATOR
Select Ash Lumber, Golden Oak Finish
Nos. 1060 and 1092



No.	Lbs. Ice.	Length.	Depth.	Height.	List Price.	Special Price.
1060	70	30 1/4 in.	18 in.	42 1/2 in.	\$77.00	\$50.00
1092	170	39 3/4 in.	22 1/2 in.	54 1/2 in.	126.50	81.25

RADIUM REFRIGERATOR
White Enamelled
Select Ash, Golden Oak Finish



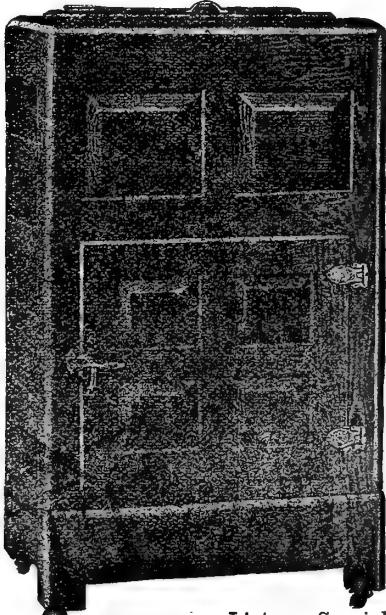
No.	Lbs. Ice.	Length.	Depth.	Height.	List Price.	Special Price.
705E	75	25 1/2 in.	18 1/2 in.	43 in.	\$36.00	\$23.50
709E	110	30 3/4 in.	20 in.	47 in.	49.15	32.00

These Refrigerators are constructed with an inside case of odorless and tasteless lumber, matched and clamped together, well nailed and glued, and fastened to hardwood cleats, making it a thoroughly air-tight strong cabinet in itself. The outside case is of solid hardwood lumber, and is nailed and glued to the cleats which bind the inside case, thus making it one of the strongest and most durable Refrigerators ever built.

The ice rack is made of galvanized steel bars, welded together. The strongest and most common sense ice rack made. The shelves are of genuine steel wire, woven on a heavy steel wire frame and heavily tinned.

They are finished in three coats of best quality of filler and waterproof varnish, giving them a gloss finish that looks well and that will wear. The inside construction is neat and sanitary, containing many features covered by patents. These add much to the convenience of the user.

ONE-PIECE PORCELAIN REFRIGERATORS
Selected Ash, Golden Oak Finish
Nos. 50 and 70



No.	Lbs. Ice.	Length.	Depth.	Height.	List Price.	Special Price.
50	60	24 3/4 in.	18 in.	43 in.	\$56.10	\$33.25
70	110	30 3/4 in.	20 in.	49 in.	75.90	45.00

No.	Width.	Depth.	Height.	List Price.	Special Price.
771	28 1/4 in.	17 1/4 in.	25 1/4 in.	\$18.20	\$12.00
774	27 3/4 in.	20 in.	30 in.	24.00	15.75
777	32 3/4 in.	21 in.	32 in.	28.85	18.75



THE NEW SHARPLES

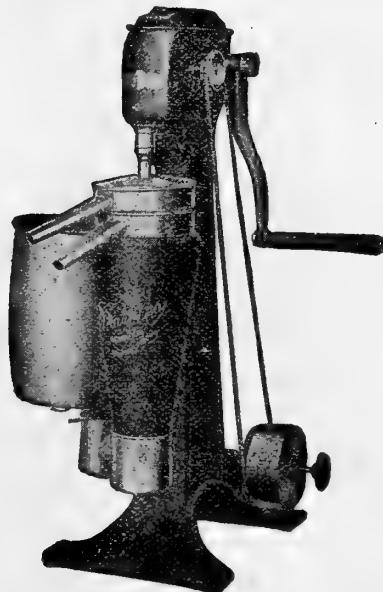
Suction Feed Tubular Cream Separator

When you buy a cream separator you naturally want the best—the separator that will net you the greatest dollar for dollar returns on your investment. The **SHARPLES** guarantees greater returns than any other. It is the only cream separator in the world guaranteeing a clean skim at any speed and delivering a cream of the same density all the time. That means a far greater saving of butterfat (money) for you.

Moreover, the **SHARPLES** is the easiest to clean, to operate, and is the most reliable. The famous Sharples Tubular Bowl has only one piece in it—no 30 or 40 discs as you find in others; the supply tank is only knee high from the floor and you don't have to strain your back to pour in the milk. For your wife and your family it means less work and greater convenience, and for you it means the best separator investment you can make.

Sizes	Capacity	Shipping Weight	Prices
1S	225 lbs. per hour	190	\$70.00
2S	300 lbs. per hour	190	80.00
3S	400 lbs. per hour	190	95.00
4S	500 lbs. per hour	260	110.00
6S	700 lbs. per hour	260	135.00
9S	900 lbs. per hour	260	150.00

SHARLESS SPEED GOVERNOR PULLEY



The **Sharples Governor Pulley** can be attached to a Sharples Separator in an instant—it clamps to the base of the separator, one screw is tightened and no holes need to be drilled. From this Governor Pulley a round belt runs to a small grooved pulley on the worm gear shaft.

You can belt direct from a gas engine, an electric motor, or a line shaft to the Governor Pulley. It prevents any jerks from the gas engine getting through to the gearing of the separator. Variations in the speed of the engine are taken care of by the governor weights and shoes in the pulley, so that the separator always runs at an even and proper speed.

A starting and stopping handle is provided on the **Sharples Governor Pulley**, which is pushed in or pulled out to start and stop the separator always runs at an even and proper speed.

separator. The power can be instantly applied or shut off the separator—the engine or line shaft can be running while separator bowl is at a standstill. Price, \$18.00.

G. T. CO.'S PERFECTION SEPARATOR OIL

This Oil is put up expressly for the use of separators, and we recommend it to users of all hand machines, it being a light oil and having a very low cold test.

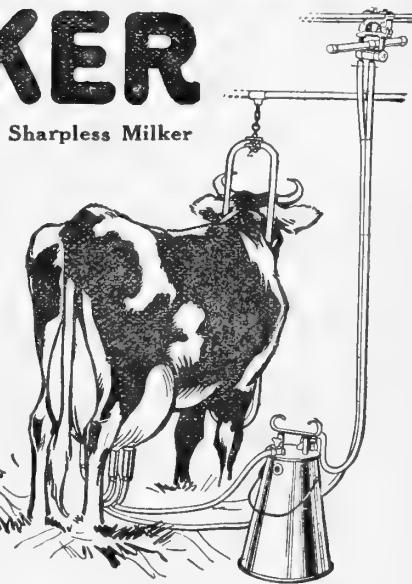
1-quart can	\$0.40
½-gallon can .....	.65
1-gallon can	1.00
5-gallon can	4.00

SHARPLES

MILKER

Description of the Sharpless Milker

At some convenient point is placed an air pump driven by a gasoline engine or other available motor of about two or three horse-power. From this pumping outfit, which may be placed at any point within five hundred feet from the cow stables, two ordinary galvanized iron pipes are run to the cow stables and from end to end of the line of stalls, being suspended just above the cow's front shoulders high enough to be out of the way, and conforming to the style of modern barn equipment.



At every other stall a fixture is attached to the pipes for the purpose of connecting the pulsator. From this, two flexible tubes descend, one to the bucket and one connected direct to the teat-cups. **None of these tubes or attachments come in contact with the milk at any time.** With the buckets and teat-cups the above described apparatus completes the outfit.

The bucket is nothing more than a plain, round, strongly built bucket, just a seasily cleaned as any other bucket. It can be furnished either in solid Nickel Silver (absolutely non-rusting) or in Armco Metal, heavily tinned. The latter is less costly but, of course, does not last quite so long.

The cover is a flat disc with two cocks on it for attaching the tubes in the case of the single unit and four cocks in the case of the double units. The handle is made in such a shape as to conveniently hold the teat-cups when not in use.

WRITE FOR SPECIAL CATALOG AND PRICES.

THE BOSS CREAM SEPARATOR



The **Boss Cream Separator** consists of a water vessel containing one or more milk vessels fastened together with our Patent Can Attachment.

The **Water Vessel** is made of the very best quality of 26 gauge galvanized iron and is provided with a large water faucet at the bottom and overflow pipe at the top.

The **Milk Vessel** is made of the best grade 3XXX 4AAAA Charcoal Tin Plate. It is oblong and deep with a sloping bottom, milk and cream will drain off rapidly. All seams are carefully soldered both on the inside and outside, and there is no chance whatever for milk to lodge and sour. All milk vessels are coated with Aluminum which is the best rust preventative known.

	Height.	Width.	Weight.	
No. 1—	2½ gal. milk vessel..	18 in.	13 in.	14 lb. \$7.75
No. 2—	4 gal. milk vessel..	20 in.	15 in.	17 lb. 8.50
No. 3—	6 gal. milk vessel..	22 in.	17 in.	20 lb. 9.35
No. 4—	8 gal. milk vessel..	24 in.	18 in.	22 lb. 10.25
No. 5—10	gal. milk vessel..	28 in.	18 in.	24 lb. 11.50

THE TWIN BOSS

The **Twin Boss** is especially adapted for farmers and dairy-men who get more than 10 gallons of milk at a milking. A milk vessel that holds more than 10 gallons is hard to handle and will not produce as good results as smaller ones.

We would also recommend **The Twin Boss** to those who prefer a Separator with two milk vessels, so that one can be used in the morning and the other in the evening. This method has many advantages over the Separator with the single milk vessel.

No.	Height L'g't	Width	Weight	
22 two 2½ gal. milk vessels..	18 in.	24 in.	13 in.	27 lbs. \$15.25
24 two 4 gal. milk vessels..	20 in.	30 in.	15 in.	33 lbs. 17.00
26 two 6 gal. milk vessels..	22 in.	30 in.	17 in.	38 lbs. 18.50
28 two 8 gal. milk vessels..	24 in.	30 in.	18 in.	41 lbs. 20.25
210 two 10 gal. milk vessels..	28 in.	30 in.	18 in.	46 lbs. 23.00

THE TRIPLE BOSS



Too much can hardly be said in favor of the **Triple Boss**. It is fast getting to be our best seller and from all indications is the machine of the future. With two milk vessels, one for the morning's and one for the evening's milk, a cream can to keep the cream in the best condition for making first-class butter and room

enough back of the cream can to set another vessel, in which to keep the butter during hot weather, it is certainly all that one can desire in the line of a Cream Separator.

No.	Gallon	Gallon	H'g't	L'g't	W'th	W't	
32 two	2½ milk can,	2½ cream can,	18	24	13	30	\$17.00
34 two	4 milk can,	3 cream can,	20	30	15	37	18.50
36 two	6 milk can,	3 cream can,	22	30	17	42	20.25
38 two	8 milk can,	4 cream can,	24	30	18	45	22.00
310 two 10	milk can,	4 cream can,	28	30	18	50	25.25

THE BOSS



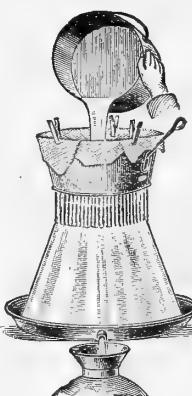
VENTILATING AND AERATING CREAM SEPARATOR

In the **Boss Dilutors** or Water Mixers the milk and water is mixed together or in other words the water is poured right into the milk so as to chill it instantly and cause the cream to raise in about one hour.

In ordering a separator of this kind be sure and order one that will hold twice the amount of milk that you wish to put into it so as to make allowance for water.

No.—Sizes	Prices
6—8 gal., holds 4 gals. milk..	\$2.25
7—12 gal., holds 6 gals. milk..	6.00
8—16 gal., holds 8 gals. milk..	6.75
9—20 gal., holds 10 gals. milk..	7.75
10—24 gal., holds 12 gals. milk..	8.50

CHAMPION AUTOMATIC MILK COOLER-AERATOR



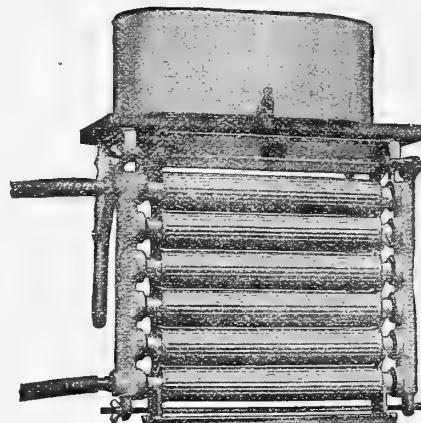
To Operate—Set as low as possible where there is plenty of pure, fresh air; if the wind blows, the better. It can be used in the strongest wind without a drop being blown away. Use very cold water. Use a cloth or metal strainer over the top of milk receiver.

No.	Capacity of Milk Receiver	Size of Dairy.
2.....	18 quarts	10 to 25 cows
3.....	34 quarts	25 to 50 cows
4.....	52 quarts	50 to 100 cows

No.	Takes Care of	Special Price.
2.....	3 milkers	\$12.50
3.....	5 milkers	15.00
4.....	8 milkers	18.75

Extra sizes on special orders. Prices include double cheesecloth strainer and spring pins.

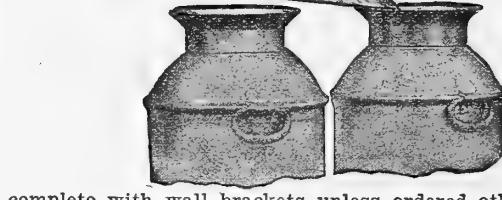
ROOT SANITARY COOLER



Corrugated cylinders retard the flow and cause a more thorough cooling. These corrugations are just sufficient to retard the flow and make cleaning easy. Sediment on the inside of cylinders that in ordinary coolers reduce the efficiency, can be removed, as cylinders can be taken out and scrubbed as often as necessary to keep them clean.

The cylinders are made of special drawn copper tubing, heavily tinned, fitted with strong brass ends, the supporting racks also water columns and hangers, are made of the best grey iron castings, covered with a thick coat of galvanizing. All parts with which the milk comes in contact are copper heavily tinned.

All coolers are shipped



complete with wall brackets unless ordered otherwise.

No.	Capacity Per Hour, Gals.	Capacity of Res., Qts.	No. of Cylinder.	Price.
0	20	18	4	\$32.50
1	35	26	6	38.75
2	50	32	6	45.50
3	65	42	6	52.00
3½	85	42	8	65.00
4	120	70	8	104.00

Portable stand, extra..... 11.00

ASEPTIC MILKING TUBES

FOR COWS WITH SORE TEATS.

Insert one in the teat and the milk will flow.

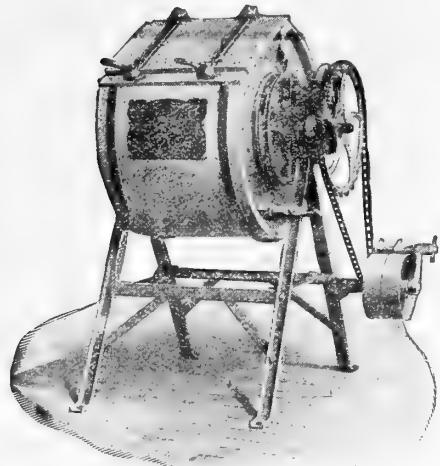


Plain Tube, 35c.



Self Retaining Tube, 35c.

MINNETONNA HOME CREAMERY



CHURNS
THE BUTTER
AND
WORKS IT.

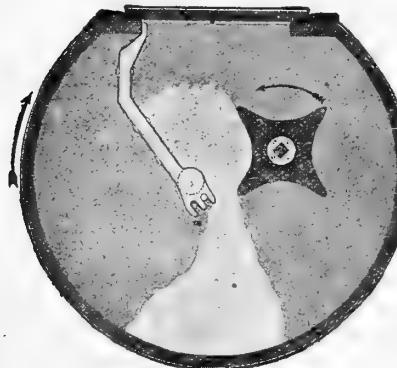
The Minnetonna process of churning is the most efficient method of agitating the cream during churning yet discovered. It works on the same principle that is used in some of the most modern and approved big creamery churns.

Style No. 1-H hand-power plant; churning capacity, 12 to 15 gallons; working capacity, up to 25 pounds butter.

The style No. 3 is a very good size for dairy farmers wanting to make butter once or twice a week by hand, and having from five to fifteen cows.

No. 1 H. P. Minnetonna Home Creamery; hand and power. Churning capacity, with barrel half full, 12 gallons. Working capacity, 3 to 20 pounds. Can be belted to your gasoline engine. Pulley, 8 x 2 $\frac{1}{4}$ inches. Speed, 200 R. P. M. Floor space required, 2 ft., 8 in. x 2 ft., 7 in. Shipping weight, 210 pounds.

It Works the Butter Properly and Quickly

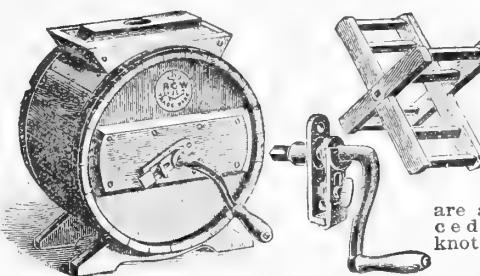


Cross section view of Minnetonna Home Creamery, showing how the butter is worked between two rolls.

Here is another feature wherein the Minnetonna is away ahead of the old-fashioned farm churn. The working is done in the barrel after the churning and washing are finished. The butterfat particles are all gathered together and thoroughly worked between the main roll in the center of the barrel and the small idle roll at the end of the basket. The main roll revolves when the working gear is thrown into place. The whole job is done with a few revolutions of the barrel.

	Factory Number	Churning Capacity With Drum Half Full	Butter Working Capacity	Shipping Weight	Style	Price
Minnetonna Home Creamery	No. OMB 1 H.	12 Gallons	3 to 20 lbs.	195 lbs.	Hand Operated	\$44.75
	No. OMB 1 H. P.	12 Gallons	3 to 20 lbs.	210 lbs.	Hand and Power	\$54.75
	No. OMB 2 H. P.	20 Gallons	5 to 40 lbs.	250 lbs.	Hand and Power	\$64.75

CEDAR CYLINDER CHURN

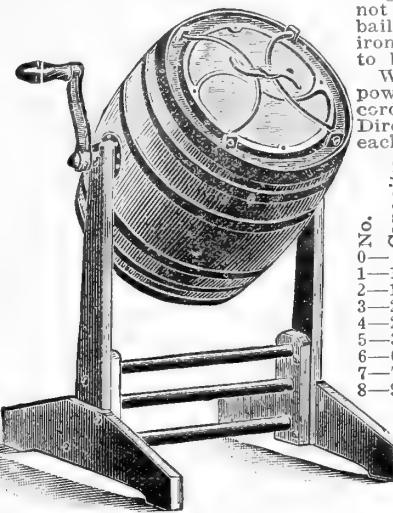


There are a number of Cylinder Churns on the market sold at a lower price, but they are made of pine or other inferior wood, while these are all of selected cedar, free of knots.

No. 1—2 $\frac{3}{4}$ gallons..... \$4.25
No. 2—4 gallons..... 5.00

No. 3—7 gallons..... \$5.80
No. 4—10 $\frac{1}{2}$ gallons..... 6.60

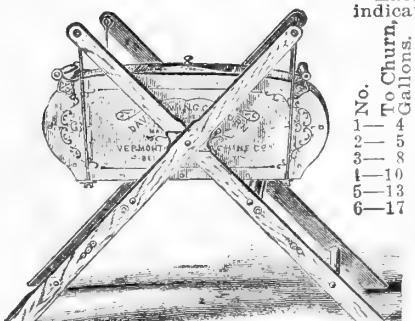
BALTIMORE FAVORITE CHURN



No.	Capacity, Gallons.	To Churn, Gallons.	List Price.	Retail Price.
0	6	6	\$8.00	\$6.75
1	10	7	9.00	7.75
2	15	7	10.00	8.50
3	20	10	11.00	9.25
4	25	12	14.00	11.75
5	35	17	16.00	13.50
6	60	30	26.00	21.35
7	75	37	30.00	25.00
8	90	45	35.00	29.25

10-inch Single Pulleys for above. List, \$4.00. Retail, \$3.00.

DAVIS SWING CHURN



The round ends of the Churn cause the cream as it strikes against them to slide up and over, turning a complete somersault.

Each Churn has a glass indicator in the cover.

No.	Capacity, Gallons.	Weight, Pounds.	\$ Price.
1	4	8	\$15.25
2	5	10	18.75
3	8	16	19.64
4	10	20	22.75
5	13	26	26.60
6	17	34	31.86

Additional for Pulley, 12x3, with attachments, \$6.50.

Additional for Tight and Loose Pulley, 12x3, with attachments, \$9.00.

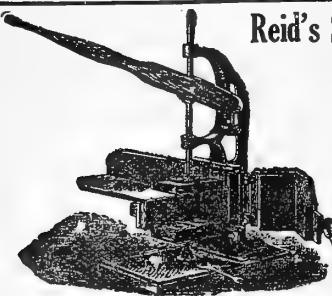
THE STURGES STEEL CHURN

Sanitary—Easy to Clean.



No. 1—5-gal. Churns, 1 $\frac{1}{2}$ to 2 $\frac{1}{2}$ gal..... \$8.25 each
No. 2—7-gal. Churns, 1 $\frac{1}{2}$ to 3 $\frac{1}{2}$ gal..... 10.25 each
No. 3—10-gal. Churns, 1 $\frac{1}{2}$ to 5 gal..... 12.50 each

They are steel (not a piece of wood about them). The Churns are mounted upon a strong welded steel base, so that with ordinary care they will last a lifetime. Being steel, they will not absorb moisture, so cannot become soaked. The inside is all smoothly and heavily tinned, so they can be easily cleaned, and there is no place for microbes to lodge. No seams to open up or hoops to drop off in the sun.

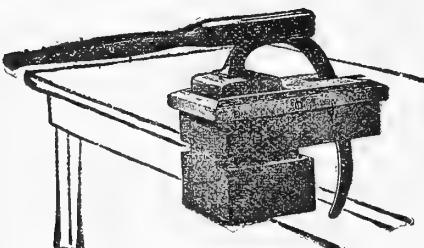


Reid's Self-Gauging Butter Printer

Prints butter very neatly and quickly. Weighs into pounds or half pounds as desired. Does it in one-quarter the time it can be done by hand, making prints of uniform weight. Moulds are square.

Both pound and half pound combined... **20.25**
Either pound or half pound..... **\$15.00**
Extra for initials and monograms... **1.50**

LAFAYETTE BUTTER PRINTER

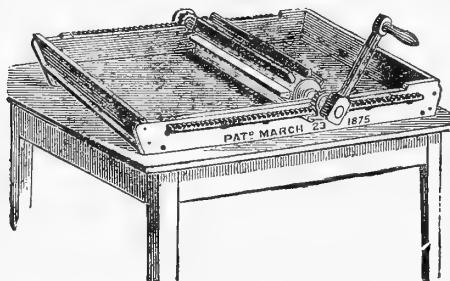


This is also self-gauging. Intended for use in creameries, but more especially for reprinting. Very simple and handy.

Either pound or half pound, with table, **\$27.00**.

Either pound or half pound, without table, **\$15.00**.

Extra for initial or monogram **\$1.50**



Reid's Butter Worker

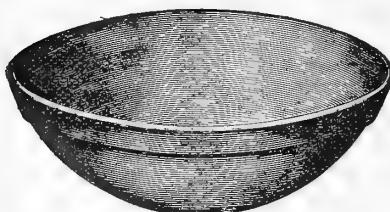
Inside No. Measurement.	Capacity, Pounds.	Weight, Pounds.	Retail Price.
4—14x24x2½ in.	10	20	\$11.25
3—17x27x2½ in.	20	25	11.75
2—20x36x2½ in.	30	29	13.50
1—23x36x2½ in.	50	45	16.90

Larger size, especially designed for mixing, reworking and coloring, or creamery use.

Inside No. Measurement.	Capacity, Pounds.	Weight, Pounds.	Retail Price.
0—23x37x3 in.	75	60	\$20.25
00—23x56x3 in.	112	80	24.30
000—23x72x3 in.	150	100	30.60

When desired, we can send legs along with any size machine for **\$5.00** extra, which can be set up after arrival at destination.

POLISHED MAPLE BOWLS



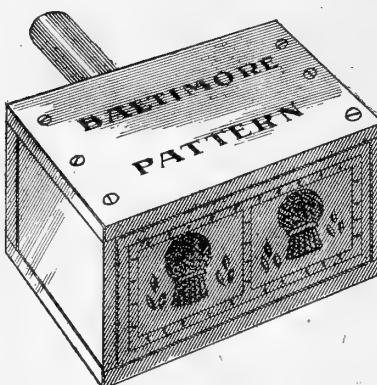
Made from Hard Maple turned from a solid block. Every Bowl is first quality, smoothly finished and polished.

Bowls, 15 inches.
Bowls, 17 inches.
Bowls, 19 inches.

SPECIAL CARVED DESIGNS

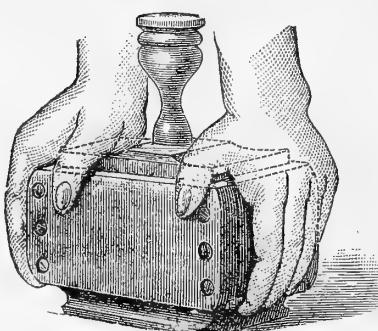
The prices given below are for special carved blocks, pound or half pound, for any of the above printers.

Plain Block, no carving.....	.25
Plain Sheaf Blocks, chain border.....	.75
Initial on block, up to five letters.....	1.50
Blocks with more than five letters, \$1.50 , with an additional charge of 10 cents for each letter over five.	
For Lafayette Printers, add price of plate.....	.25



Baltimore Pattern Hand-made Butter Mould

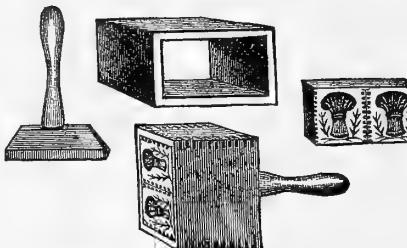
This Butter Print is hand-made out of solid hardwood, and is put together with brass screws, making it indestructible. Being a two-piece print makes it very handy to use. **1/2 lb. Sheaf of Wheat Print, \$1.25; 1 lb. Sheaf of Wheat Prints, \$1.50.**
1/2 lb. Special Print, Carved with Initial, \$2.50; 1 lb. Special Print, Carved with Initial, \$2.75.



EXTRA HEAVY BRICK BUTTER MOULD

Philadelphia Pattern, **1/2 pound, \$2.00**
Philadelphia Pattern, **1 pound, \$2.00**

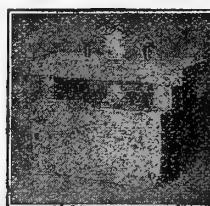
Can furnish moulds to order with initials cut at an extra cost of **\$1.50**.



Butter Mould SEELEY PATTERN.

Furnished with sheaf of wheat. Movable block.
1/2 pound.....65c.
1 pound.....85c.

ECONOMY BUTTER PRINTER



The Economy Printer is one of the most popular hand printers. It is of wood put together with brass screws, and has brass gauge screws at the top, making it self-gauging. With it butter may be printed very rapidly. Cutting the butter from the churn batch on the table, pressing the hopper full, leaving contents of hopper in a neatly formed block of butter which is pressed from the printer by pressure on the wood stem of block extending through the printer head block.

½ lb., complete, with sheaf of wheat block..... \$2.25
1 lb., complete, with sheaf of wheat block..... 2.25

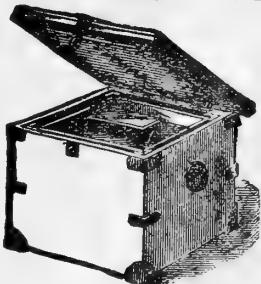
LADLES AND SPADE



4x12 Butter Spade..... **15c.**

No. 1 Butter Ladle..... **25c.**

BUTTER BOXES



These boxes are iron bound at the edges and capped at the corners. An ice box is fitted in the center, which can be removed at will and the space utilized.

Capacity.	Price.
36 $\frac{1}{2}$ -pound prints.....	\$10.50
64 $\frac{1}{2}$ -pound prints.....	12.25
80 $\frac{1}{2}$ -pound prints.....	12.90
100 $\frac{1}{2}$ -pound prints.....	14.00
120 $\frac{1}{2}$ -pound prints.....	15.25
140 $\frac{1}{2}$ -pound prints.....	16.40
20-lb. prints, \$9.00	56-lb. prints 11.75
30-lb. prints, 10.00	80-lb. prints 12.90
40-lb. prints, 11.25	96-lb. prints 14.00
120-lb. prints.....	\$15.25

PELOUZE DAIRY SCALE

Graduated by Tents of a Pound.

GUARANTEED ACCURATE.

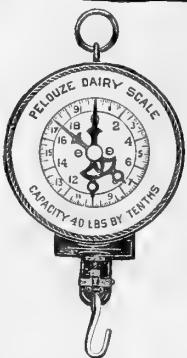
Made to comply with Departments of Weights and Measures. Large Circular Brass Dial, with distinct, black figures and graduations.

Two indicator hands—one red, to be set at the weight of empty pail.

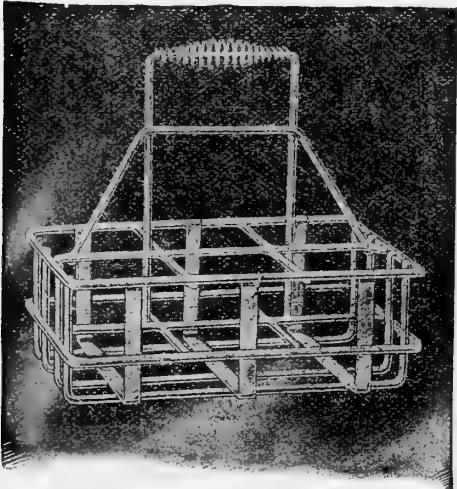
Very attractive and durable.

"PELOUZE" DAIRY SCALE.

No. D 40—Capacity 40 lbs.....\$3.50
No. D 60—Capacity 60 lbs.....4.00



MILK BOTTLE BASKET



These baskets are made from the best grade of flat and round steel wire. The welded joints make them the same as one piece, hence, all strain and shocks are distributed over the entire body.

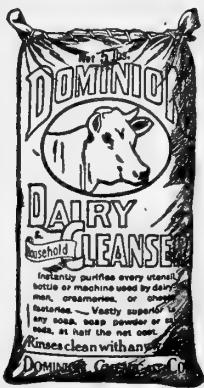
No rivets being used in its construction, there is no part to get loose and at the same time is not weakened by rivet holes.

It has no crevices in which dirt can collect consequently it is easy to clean and sterilize.

6 bottles... \$1.50
3 bottles... 1.75

DOMINION DAIRY AND HOUSEHOLD CLEANSER

An improved cleanser and purifier for all dairy and household purposes. Just the thing for Churns, Pails and anything used in dairies. For household use, laundry work, all kitchen use, house-cleaning, public buildings, hotels and factories.



Dissolves with greatest ease in either hot or cold water, and rinses off perfectly clean without leaving a soapy scum. Price: 5-lb. bag, 25c.; 25-lb. bag, \$1.10.

MILK BOTTLES



These bottles are made by a factory devoted especially to bottle making. The glass is clear flint. This makes a bottle that the milk shows up to the best advantage. They are made to stand the rough usage of the street delivery and collection on routes, and washing and sterilizing in the dairy house. These bottles are made with a long neck, and will show a deep cream line. Prices named are for bottles F. O. B. Baltimore.

If you desire name plates, same can be put on any order of five gross or more of one size, at an additional cost of \$1.50 for each name plate. Each size bottle will require a different plate. On second orders, there will not be any extra charge for lettering.

	Quart.	Pint.	1/2 Pint.	1/4 Pint.
One dozen	\$1.25	\$.90	\$.90	\$.90
One gross	11.00	9.25	9.20	9.20
Two gross and over	10.85	9.20	9.10	9.10
Five gross and over	10.75	9.10	9.00	9.00
Fifteen gross and over	10.75	9.00	8.90	8.90

WRITE FOR CARLOAD PRICES.

MILK BOTTLE CAPS



The great convenience of this cap will be appreciated, as it is made with a lift to take the cap out. This prevents spilling the milk, or having to use anything to pry it out.

These caps are made from 40-point thick board, and are thoroughly waterproofed with paraffine.

One thousand	\$.50
Five thousand	2.25
Twenty-five thousand	11.25

LARGER QUANTITIES, PRICE ON APPLICATION.

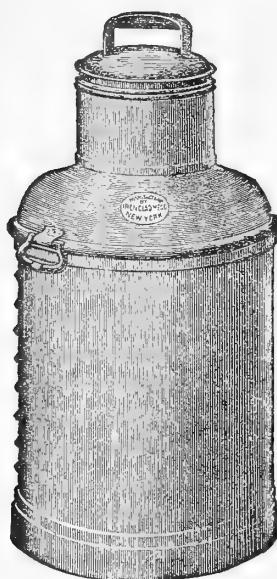
PARCHMENT BUTTER PAPER

It can be used in all cases where wax paper, tin foil or muslin has been adopted, and in many cases where these cannot, for preserving goods from the effects of moisture, etc. In sheets 24x36, or can furnish the paper cut in the following sizes without extra charge: 6x9 for half pounds, 9x12 for one pounds, and 10x15 for two pounds. Price, 30c. per pound; by mail, 36c.; 6 pounds, \$1.75.

DAIRY SALT

14-pound sacks	\$.50
28-pound sacks .....	.75
50-pound sacks	1.00
100-pound sacks	1.90

GRIFFITH & TURNER CO



BALTIMORE PATTERN MILK CANS

The Baltimore Pattern.

This cut illustrates it. It is the standard Baltimore Pattern Milk Can.

Smooth inside surface, without crevices or protruding rivet heads, which enables cans to be easily, quickly and thoroughly cleaned.

THE BALTIMORE PATTERN.

20-quart	\$6.25
30-quart	7.25
40-quart	7.75

Special Prices in Quantities.
Our charge for marking name on can will be 35 cents each.
Can furnish cheaper cans.

Prices on application.

IOWA PATTERN MILK CANS

IOWA PATTERN HEAVY MILK CAN.

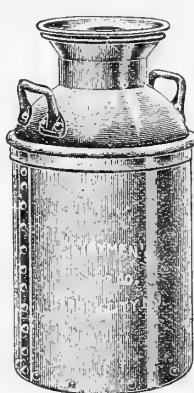
20-quart	\$5.00
32-quart	6.50
40-quart	6.75

Special Prices in Quantities.

Our charge for marking name on can will be 35 cents each.

Can furnish cheaper cans.

Prices on application.



NEW YORK PATTERN MILK CANS



Furnished with our new Umbrella Cover, with seamless rim welded to top. The malleable iron handle is so curved that it does not strike the body of the can, and is practically noiseless.

20-quart	\$6.25
40-quart	7.75

Special Prices in Quantities.

Our charge for marking name on can will be 35 cents each.

Can furnish cheaper cans.

Prices on application.

DOUBLE BOTTOM CEMENT PAIL

Heavy reinforced Galvanized Cement Pail.....\$2.00



WOODEN STABLE BUCKET

J. I. C. Cedar—Heavy iron-bound stable bucket. Each, \$1.50

MILK STRAINER



These milk strainers are made of extra heavy tin and brass wire cloth. They are warranted not to rust.

Prices.

4-quart	\$1.25
6-quart	1.50
10-quart	1.75

SANITARY FISH MOUTH DAIRY PAIL

Approved and recommended by State Dairy Inspectors. Used exclusively by many large and practical Dairymen. Made from finest charcoal plate. One piece retinned top or hood. Steel Bail. Reinforced Ears. All seams sanitary soldered inside and out.

PLATE.

XXX. HEAVY CHARCOAL

14-quart	\$2.25
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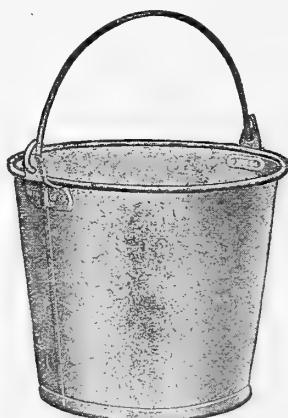


DAIRY STRAINER PAIL

Coppered Bail. Natural finish bail wood. Reinforced ears. Handle near bottom to use when pouring from pail.

XXX. CHARCOAL PLATE.

14-quart	\$1.75
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MILK PAIL

BEST XXX BLOCK TIN.

12-quart	\$1.25
14-quart	1.50

LIGHTER PAILS.

12-quart	\$1.00
14-quart	1.25

HEAVY GALV. PAIL.

12-quart	\$1.15
14-quart	1.25



MILK CANS

Finest charcoal plate. Seamless cover and neck. Bottom reinforced with steel band. Heavy steel bail. Sanitary soldered. Full capacity.

2-quart	\$1.25
4-quart	1.50
6-quart	2.00
8-quart	2.30
10-quart	2.50
12-quart	3.00

The "FROST KING" Steel Frame Freezer Single Motion

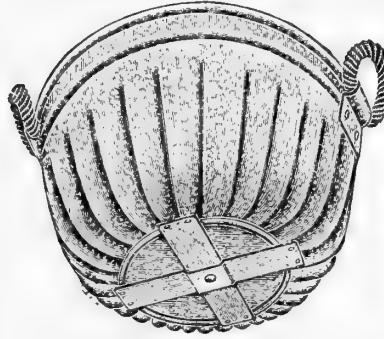


Is a single-motion freezer, and is accordingly sold at a lower price than our other makes. It is, however, of exactly the same high-grade construction. The mechanism is very easy to operate, and the can being of the narrow-model type makes the freezing very rapid. The operation of this freezer is extremely simple.

The wood scrapers on the dasher press automatically against the sides of the revolving can. These remove the frozen cream and throw it to the centre where the spoons on the beater mix it with the cream still unfrozen and return the whole to the sides to be refrozen. The "Frost King" Steel Frame freezer will produce a rich and evenly frozen ice-cream in about three minutes.

Sizes 2-qt. 3-qt. 4-qt. 6-qt. 8-qt.
Retail Prices \$8.75 \$4.25 \$5.10 \$6.50 \$8.35

Galvanized Steel Baskets



UTILITY STEEL BASKETS GALVANIZED.

With Bale or Side Handles, $\frac{1}{2}$ Bushel, \$1.25; 1 Bushel, \$1.50; $1\frac{1}{2}$ Bushels, \$1.75.

OAK BASKETS.

1-Bushel Oak Basket..... \$2.00

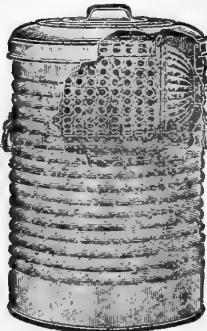
BAMBOO AND OAK BASKETS.

1 Bushel \$1.80
 $1\frac{1}{2}$ Bushels 2.10

FLAT OAK SPLINT BASKETS.

1 Bushel \$1.25
 $1\frac{1}{2}$ Bushels 1.60
2 Bushels 2.10

Dust Proof Coal Ash Sifter and Can



You can almost literally realize that pleasure.

Fill the rotating sifter part with ashes.

Turn the crank a few times, and presto! the ashes are in the bottom—good coal saved in the sifter. No magic, but feels just like it.

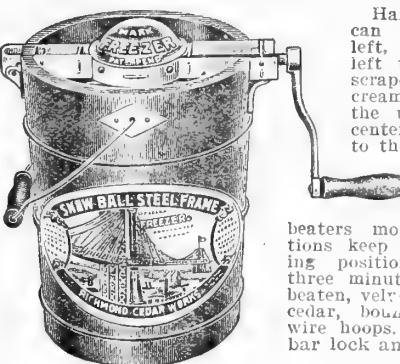
No dust, no waste.

Here you get a bank that really makes money for you all winter long.

Rotating sifter easily removed. Can and cover included to make complete and efficient outfit.

PRICE..... \$5.00

"Snow-Ball" FREEZER

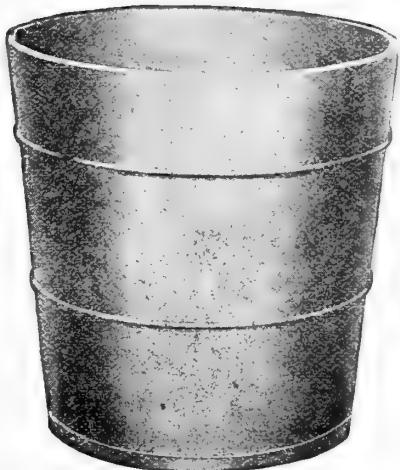


Has three motions. The can revolves from right to left, the outer beater from left to right, the two wood scrapers removing the frozen cream from the sides with the unfrozen cream in the center, and throws all back to the side to be again frozen and removed by the scrapers. The continuous action of

the can and two beaters moving in opposite directions keep the cream ever changing position, producing in about three minutes a very smooth, well-beaten, velvety cream. Virginia white cedar, bound with electric welded wire hoops. Fitted with new cross bar lock and reinforced cross bar.

Sizes	2-qt.	3-qt.	4-qt.	6-qt.	8-qt.
Retail Prices	\$4.25	\$5.25	\$6.25	\$8.00	\$10.00

Cedar and Oak Measures



Each.
 $\frac{1}{4}$ -Peck, wire hoops \$.80

$\frac{1}{4}$ -Peck, cypress, flat hoops60

Peck & $\frac{1}{2}$ -Peck, comb., wire hoops. 1.25

Peck & $\frac{1}{2}$ -Peck, cypress hoops85

$\frac{1}{2}$ -Bushel, wire hoops 1.60

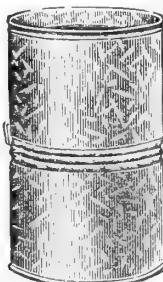
$\frac{1}{2}$ -Bushel, cypress 1.25

$\frac{1}{2}$ -Bushel, oak, iron cross-bar.... 2.50

Corn Barrels

Without handles	\$9.00
With handles	10.00

MONITOR ASH CANS Galvanized.



No. Cap. Gals. Prices.

2 $\frac{1}{2}$ 10 \$4.00

3 17 $\frac{1}{2}$ 4.75

4 22 $\frac{1}{2}$ 5.25

Covers for Cans—2 $\frac{1}{2}$,

60c.; 3, 75c.; 4, 90c.

The prices of cans do

not include covers.

GARBAGE CANS Galvanized.



Cap. Price, Price,

No. Gals. Galv. Japanned \$1.50 \$1.00

00 5 $\frac{1}{2}$ 2.00 1.10

02 6 $\frac{1}{4}$ 2.25 1.25

03 8 $\frac{3}{4}$ 2.25 1.25

04 10 $\frac{3}{4}$ 2.50 1.50

These prices include

covers.

MILK TESTERS AND GLASSWARE

WAGNER PRECISION BABCOCK GLASSWARE

For testing milk and its products, in accordance with specifications formulated by the Bureau of Standards, Washington, D. C. and adopted by the Official Dairy Instructors' Association. The markings are unusually exact, the lines being sharp and uniform. All the markings are permanent being filled with a red enamel which will not wash out.

P1000	10% Milk Test Bottles.....	Each \$0.25	Doz. \$2.75
P1005	30% Cream Test Bottles.....	Each .30	Doz. 3.00
P1011	50% Cream Test Bottles.....	Each .35	Doz. 3.75
1014	1-100% Skim Milk Test Bottles.....	Each .75	Doz. 8.00
1026	Acid Measures.....	Each .15	Doz. 1.50
1019	17.6 c. c. Milk Pipette.....	Each .30	Doz. 3.00
1023	9 c. c. Cream Pipette.....	Each .30	Doz. 3.00

THE BABCOCK TESTER

No. 4-2 Bottle size for milk only.....\$6.00

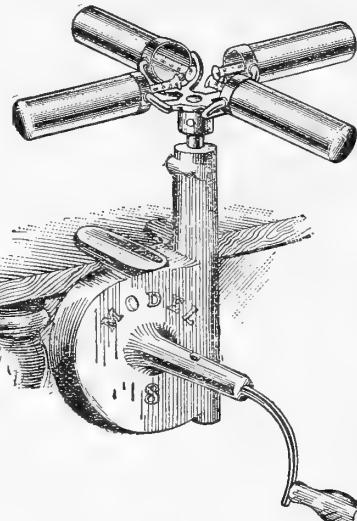
No. 5-2 Bottle size for milk and cream...\$6.75

No. 6-4 Bottle size for milk only.....\$7.35

No. 7-4 Bottle size for milk and cream...\$8.00

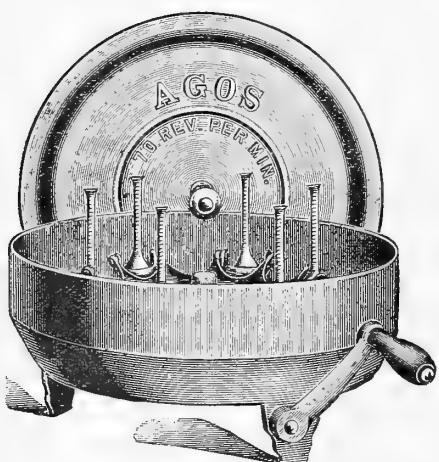
Shipping weight about 17 pounds.

All Testers are equipped with full set of glassware for testing milk or milk and cream; also furnished with brush and bottle of acid.



THE "AGOS BABCOCK MILK TESTER

Cast Iron Frame

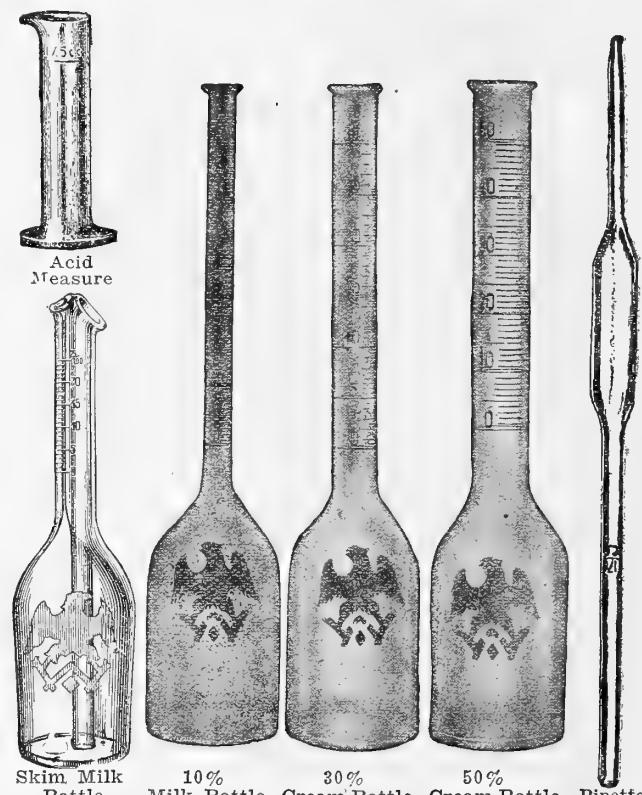


The "Agos" Tester uses the ordinary Babcock bottle, the "B. & W." or the "Ohlson" patent. With each Tester is furnished the following outfit: Full set of regular Babcock milk bottles, pipette, acid measure, acid sufficient for making 50 to 100 tests, and directions for manipulating. They are made in five sizes, as follows:

4 Bottles...	\$17.50
6 Bottles...	18.25
8 Bottles...	19.50
10 Bottles...	20.50
12 Bottles...	22.00

SULPHURIC ACID FOR TESTING

9-Pound Bottles \$2.25
Larger quantities, price on application.



FLOATING GLASS DAIRY THERMOMETERS



8-inch. Price, \$1.00 each.
8-inch. Dairy Thermometer, stands boiling water. Price, \$1.00 each.
Milk Hydrometer, No. 2035 (Quevenne), \$1.25.
Add 8 cents each if by mail.



WELL'S RICHARDSON
AND CO.'S

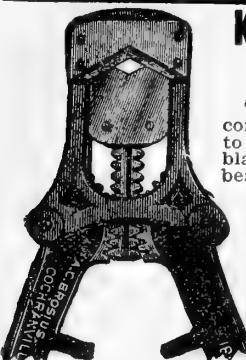
BUTTER COLORING

Will not color the buttermilk; will never turn rancid; gives the brightest and best color; butter never becomes reddish; perfect economy in use. It is cheaper than any other coloring.

Dandelion Brand Butter Coloring is guaranteed to be purely vegetable, and that the use of same for coloring butter is permitted under all Food Laws—State and National.

Put up in four sizes.

Small size to color 500 lbs....\$0.25
Medium size to color 1,250 lbs. .50
Large size to color 2,800 lbs... 1.00
Gallon cans 5.00
25c. and 50c. size by mail.
Add 15c. for Postage and Packing.

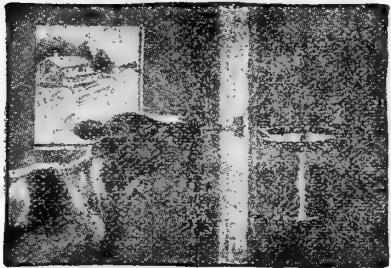


KEystone DEHORNING CLIPPER

The practice of dehorning cattle is coming more into vogue. It is a mercy to the animals. Prevents goring. The blades on the Keystone are made of best steel. No twisting motion or second cut on horn. Parts are all interchangeable, and can be replaced. It is approved by veterinary surgeons and leading dairymen. The horns must go, and they cannot go too soon.

Clipper with leader and rope, extra blades and screw, fully warranted. Our Special Price, \$18.00. Clipper alone; Our Special Price, \$16.00.

KESTONE CALF FEEDER



A simple device, based on natural laws, for feeding calves without teaching them to drink. The food is sucked through a rubber nipple and is mixed with the saliva and the digestive juices in a natural way. This feeder will prevent scours. It will make the calves fat and healthy. Used by more than 30 agricultural colleges. Price, \$1.50.

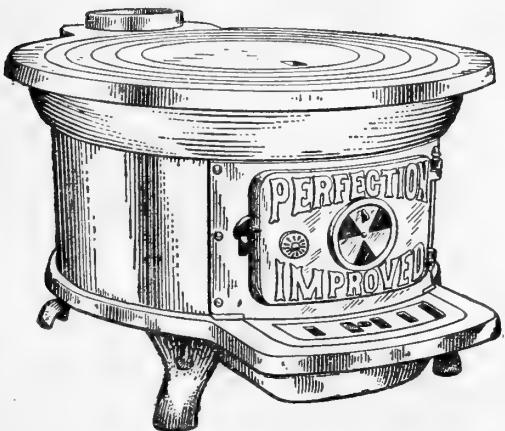


IRON KETTLES

Capacity
No. 4... 15 gals.
No. 5... 20 gals.
No. 6... 25 gals.
No. 7... 30 gals.

Our
Special
Price.
No. 4.... \$7.50
No. 5.... 8.00
No. 6.... 8.75
No. 7.... 9.50

IMPROVED KETTLE RANGE



This Kettle Range is made to accommodate any kettle a farmer may happen to have. Any copper or iron kettle up to 40-gallon capacity can be used.

The largest opening, when all the rings are off, is 25 inches, and the smallest is 12 inches.

The outside of the firebox is made of heavy steel plates and lined inside with cast-

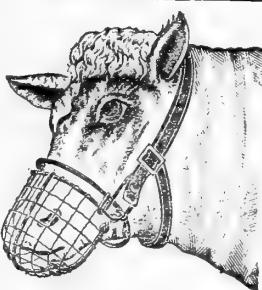
iron firebacks on all sides. The size of the firebox is 12 inches wide and 24 inches long and supplied with grate and ash pit, and has ash pan so that ashes can be removed without use of shovel. Pipe opening for 6-inch pipe. Weight, 200 lbs. Our Special Price, \$30.00. Lighter and cheaper Range with pot hole, top and 3 rings, \$25.00.



RICE'S CALF WEANERS

Also Prevents Cows from Sucking Themselves.

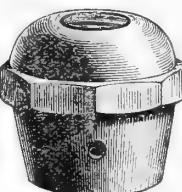
No. 1—For Calves; Retail Price	\$.50
No. 2—For Heifers; Retail Price .....	.75
No. 3—For Cows; Retail Price	1.00



SHAW'S CALF WEANERS

The Shaw's Calf Weaner is thoroughly practical. The action is entirely in the basket, it being hinged to the end of the nose piece. The basket is made of heavy galvanized wire, with extra bars running through. The halter that goes over the neck is made of solid leather, and can be adjusted to suit the calf's head.

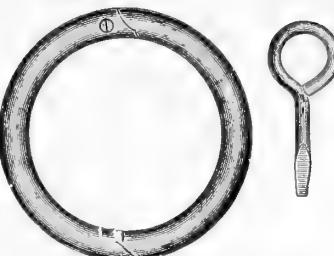
Prices: No. 1, 65c.; No. 2, 85c.; No. 3, \$1.25.



OX BALLS

TO BE USED ON COWS' AND STEERS' HORNS TO PREVENT DANGER.

PRICE, PER PAIR.....75c.



BULL RINGS

2½-in. Copper Rings...45c.

3-in. Copper Rings...50c.

HEAVY BULL RING, \$1.50



HILL'S HOG RINGER

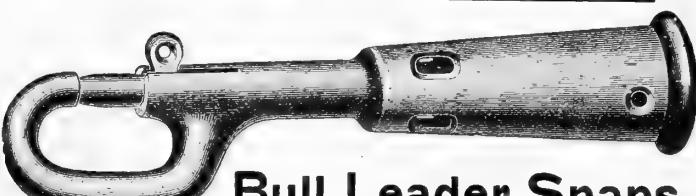
PRICE 20c.
HOG SNOUT CUTTER.

PRICE \$1.75



HOG RINGS

100 10c.
SHOAT RINGS,
100 10c.
PIG RINGS,
100 10c.



Bull Leader Snaps

These snaps are made to attach to a pole, and with each one there is furnished a chain and screweyes to attach to pole, for releasing the snap. Price, without pole.....\$1.00

SEPARATOR, DAIRY AND SCRUB BRUSHES

HAND BOTTLE BRUSHES



No. 86—Prepared Stiff Bristle; brush part, $2\frac{3}{4}$ inches diameter, 6 inches long; hickory handle, $\frac{1}{2}$ -inch in diameter, 9 in long. Dozen, \$7.00; each, 60c.

MACHINE BOTTLE BRUSHES



No. 81—Extra Stiff Grey Hair; brush part, 3 inches in diameter, $5\frac{1}{2}$ inches long; hickory handle, $\frac{3}{4}$ -inch in diameter, $3\frac{1}{2}$ inches long, tapering to $\frac{1}{2}$ -inch in diameter at the end. Dozen, \$7.00; each, 60c.

SEPARATOR SPOUT BRUSH

Will Fit De Laval and Other Separators



No. 94—All-Black Horse Hair; brush part, $2\frac{5}{8}$ inches in diameter, 6 inches long, including tuft; length, over all, 15 inches, with winged tuft. Each, 30c.

SEPARATOR BOWL BRUSHES

Will Fit De Laval, United States and Other Separators



No. 47—Black Tampico; brush part, $3\frac{1}{4}$ inches in diameter, $5\frac{1}{2}$ inches long; length over all, $13\frac{3}{8}$ inches. Each, 90c.

MILK CAN BRUSHES

Made of an excellent grade of durable fibre, very full, with solid backs. Unquestionably the best and most serviceable Milk Can Brushes on the market.



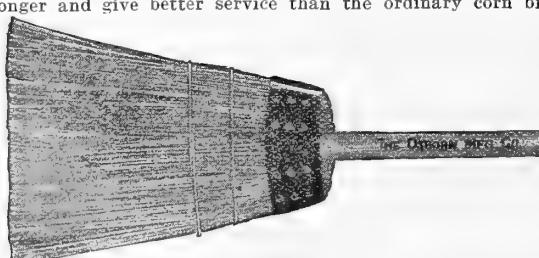
No. 416—Stiff Palmetto; brush part, 4x5 inches. Dozen, \$5.50; each, 50c.



No. 08—Stiff Palmetto Fibre; length on face, 9 inches; width on face, 5 inches. Dozen, \$6.00; each, 55c.

FACTORY, WAREHOUSE AND RAILROAD BROOMS

These Brooms are made with heavy steel bands or heads, securely nailed together. By this method of construction it is impossible for the brooms to work loose on the handles. They will last longer and give better service than the ordinary corn broom.



No. 223—Japanese Fibre; length of broom part, 14 inches. \$0.75
No. 221—Japanese Fibre; length of broom part, 16 inches. 1.00
No. 200—All-Corn Heavy Warehouse Broom.....

SHARPLES SEPARATOR BOWL BRUSHES



No. 1—Bowl Brush.....	\$0.35
No. 2—Bowl Brush.....	.35
No. 3—Bowl Brush.....	.35
No. 4—Bowl Brush.....	.35
No. 6—Bowl Brush.....	.35

SPOUT BRUSH FOR SHARPLES AND OTHER SEPARATORS



Spout Brushes 25c.

FEED TUBE CLEANER BRUSHES FOR SHARPLES SEPARATORS



Feed Tube Cleaner Brush 10c.

TEST BOTTLE BRUSHES



No. 107—For Babcock Bottles; white bristles in body and tuft, $1\frac{5}{8}$ inches in diameter, $2\frac{3}{4}$ inches long; soft white hair in neck, $\frac{3}{8}$ -inch in diameter, 3 inches long; length, over all, $13\frac{3}{4}$ inches.

Each 25c.



No. 106—Black China Bristle; brush part, $\frac{1}{4}$ -inch in diameter, 2 inches long; length, over all, $6\frac{1}{4}$ inches. Each 10c.

FLOOR SCRUBBING BRUSHES Extra Heavy



No. 368—Genuine Palmetto Fibre, 7 rows; length of stock, $1\frac{1}{2}$ inches. Each \$1.50

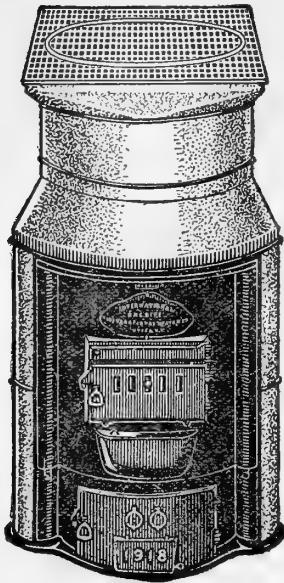
STABLE OR PUSH BROOMS



These brooms are of the highest quality. Made with heavy blocks, and the fibre fastened in so it can not come out.

No. 0286—Genuine African Bass, 4 rows.....	\$1.25
Genuine Bassine Broom; fibre put in with a patent strip	
Genuine Japanese Fibre Broom; fibre put in with patent strip	

INTERNATIONAL Onepipe Heater



THE ONEPIPE or, as termed by many manufacturers, the "pipeless" heater is the most modern development of the warm air heating system, and we unhesitatingly recommend the **INTERNATIONAL ONEPIPE HEATER** as one of the most practical, durable and efficient heaters of this type on the market.

Before trying to decide on the kind of heater to buy, we recommend that you get the advice of our engineer, for it is a fact that no two houses are exactly alike, and each one presents an individual problem.

INTERNATIONAL ONEPIPE HEATERS are adapted to many city houses as well as to country homes. They are especially efficient in bungalows and the square type two-story houses with open stairways. They are ideal for heating churches, stores, etc., because of the recirculating feature which takes the cold air from the floors. Because of their low installation cost they are frequently placed in summer camps and cottages that are occupied in spring and fall and for week-end parties in the winter.

The **INTERNATIONAL ONEPIPE HEATER** is simply a device for heating the air and causing it to circulate through the rooms. It is essentially the same as a regular **INTERNATIONAL Warm Air Furnace**—not a stove, but a furnace, properly designed to get the greatest benefit from the fuel burned, and all parts carefully mounted and fitted. Surrounding this are two casings, an inner and outer casing, and on top you can see the register.

This heater uses only the one large register, which is divided into two parts. It is a well-known fact—as old as nature itself—that air when heated expands and rises. As the warm air pours up through the central portion of the register it goes at once to the ceiling of the various rooms and floods the whole house with warmth.

This warm air displaces the cooler air, which falls to the floor and is then drawn down through the outer portion of the same register, between the outer and inner casings, and is then rewarmed and recirculated. This will be understood by carefully following the direction of the arrows in this picture.

As the space between the outer and inner casings is always filled with the cooled air returning to be heated, an **INTERNATIONAL ONEPIPE** positively does not heat the cellar. This is a big advantage and does away with the objection frequently raised against ordinary warm-air furnaces in the country or in fact, anywhere the user wishes to store fruits, vegetables or anything of a perishable nature in the cellar. If the doors between rooms are left open, the heat diffuses through the whole house. The skeptical can easily test this by igniting a piece of tarred paper or oily waste over the register, and noting how the smoke fills the rooms. Remember that the heat that you cannot see, but can feel, travels in just the same way.

No one who has ever tried a **Onepipe Heater** would think of again using stoves. It not only heats more effectively, but being in the cellar, does not take up any valuable space in the living rooms. Then you do away with all litter and bother of carrying coal and ashes through the rooms. A stove heats in spots only. It is uncomfortably hot near it and uncomfortably cold at a distance from it.

THE CASING

The feature that distinguishes the **INTERNATIONAL ONEPIPE HEATER** from stoves, ordinary furnaces and all other Onepipe, or so-called "Pipeless" heaters, is the construction of its casing. The castings are surrounded by two casings or "jackets"—the heated air passes up inside of the inner casing while the cooler air is returned between the inner and outer casings. Both of these are made of rust-resisting galvanized iron and they are so shaped that there is not a single sharp angle or dead pocket to obstruct the free and easy flow of air.

The inner casing is in one piece and carried right down to the base and openings are cut in it through which the air circulates. This construction is much more stable than where this part is set up on legs.

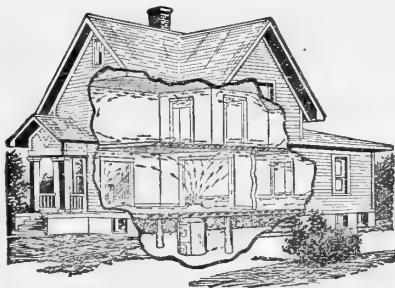
The inner casing is triple lined—you will understand what we mean by this if you will refer to the little diagram shown on this page. Inside of the galvanized iron are placed two thicknesses of asbestos paper and one thickness of bright corrugated tin—these are all securely riveted together. The purpose of the corrugations is to provide a layer of air which, in connection with the asbestos paper and corrugated tin make an effective insulation to keep all the heat inside the casing where it is needed. Contrast this durable heavy construction with a common type of inner casing made of cheap black iron with a single asbestos lining pasted inside, or with a secondary lining of black iron.

GALVANIZED IRON CASING
LINED WITH 2 THICKNESSES
OF ASBESTOS PAPER
AND CORRUGATED TIN

SECTION OF TRIPLE INSIDE CASING
RIVETED TOGETHER

GUARANTEE

Where we recommend an **INTERNATIONAL ONEPIPE HEATER** it is sold under the positive guarantee that if it does not prove satisfactory, after a 60-day trial in cold weather, it can be taken out and returned and the purchase price will be refunded.



International Onepipe Heater as installed in a home showing how the warm air circulates everywhere.

LIST PRICE, CAPACITY and DATA

Number	List Price	Retail Price	Capacity No. of Rooms	Diam. Casing	Diam. Firepot	Diam. Smoke Pipe	SIZE OF REGISTER	
							Outside	Warm Air Pipe
*38-0	\$270.00	\$162.00	4 to 6	38-in.	18-in.	7-in.	24-in.x27-in.	18-in.
42-0	300.00	180.00	6 to 8	42-in.	20-in.	7-in.	30-in.x30-in.	22-in.
46-0	344.00	206.40	8 to 10	46-in.	22-in.	7-in.	35-in.x35-in.	26-in.
50-0	400.00	240.00	10 to 14	50-in.	24-in.	7-in.	40-in.x40-in.	30-in.
†40-0	284.00	170.40	6 to 8	40-in.	20-in.	7-in.	30-in.x30-in.	22-in.
†44-0	324.00	194.40	8 to 10	44-in.	22-in.	7-in.	35-in.x35-in.	26-in.

*The 38-0 size does not have coil opening.

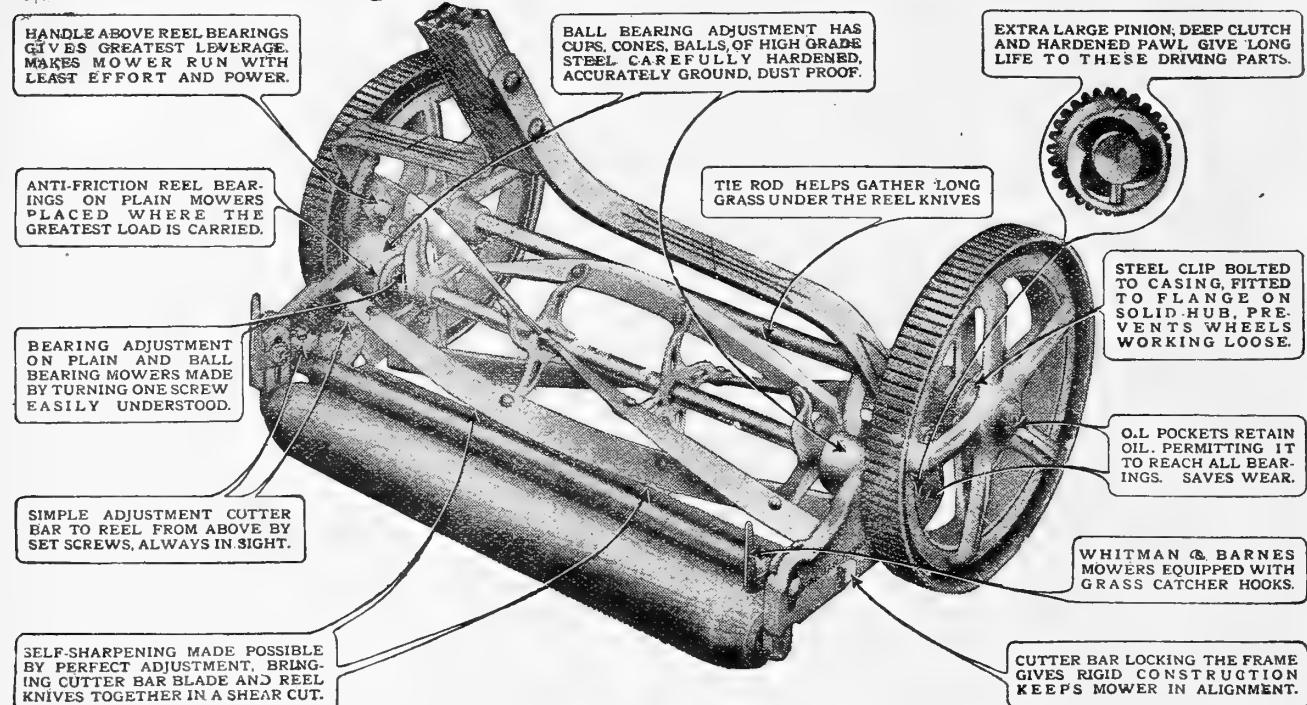
†These sizes have single feed door.

All Double Door Heaters measure 7 feet 11 inches from base to register, but extension pipe telescopes, so as to fit without cutting, as low as 6 feet 11 inches. Special measurements can be furnished to order, when distance from basement floor to top of first floor is given.

Every Onepipe Heater is shipped complete with casings and electroplated register; and including also one galvanized smoke pipe elbow, one joint of smoke pipe and damper with regulator and chains so that it can be operated from the floor above.

WHITMAN & BARNES LAWN MOWERS

SUPERIOR POINTS IN CONSTRUCTION OF WHITMAN & BARNES LAWN MOWERS



NEW NORKA MOWER

9-INCH WHEEL.

Pawl and pinion attachment thoroughly tested; one of the best. Ratchet Clutch, cast solid with pinion; no extra pieces to break or get out of order.

Do not class with the cheap low-wheel machines.
Regular.

12 in.....	7.15
14 in.....	7.50
16 in.....	7.90
18 in.....	8.25

Ball Bearings.

14 in.....	\$9.75
16 in.....	10.25
18 in.....	10.75

LITTLE SHAVER MOWER

Low priced and good. 12 in., \$6.00. 14 in., \$6.30. 16 in., \$6.60.

W. & B. JR. LAWN MOWERS

Strictly first-class, high-wheel, adjustable reel Mower. Built very strong. Castings have long hubs, through which an 11-16 inch solid steel shaft is passed.

Regular.

14 in.....	\$10.15
16 in.....	10.90
18 in.....	11.60
20 in.....	12.40

Ball Bearings.

14 in.....	\$12.00
16 in.....	12.75
18 in.....	13.50
20 in.....	14.25

"NEW ELECTRIC" MOWERS

Wheels 9 inches diameter. Reel 5 1/4 inches diameter. Four blades. Special Ball-Bearing Adjustment, high-grade hardened steel balls, cups and cones, ground, polished and dust-proof. Reel shaft cold-rolled steel. Reel knives best grade Knife Steel perfectly ground.

Regular.

12 in.....	\$8.50
14 in.....	9.00
16 in.....	9.40
18 in.....	9.75

Ball Bearings.

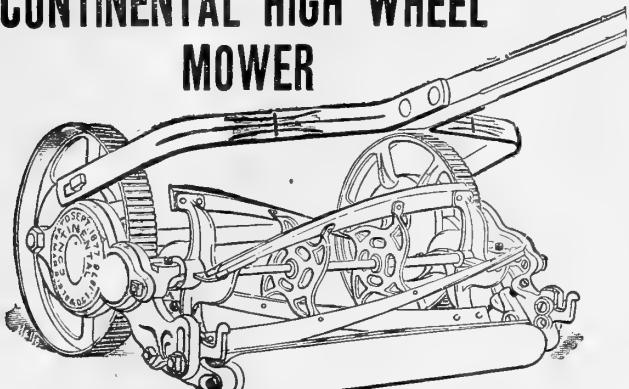
12 in.....	\$ 9.50
14 in.....	10.50
16 in.....	10.87
18 in.....	11.25

DIAMOND SPECIAL BALL-BEARING MOWER

This machine is built of highest quality material, and is fitted with Ball-Bearing Adjusting Device. The balls, cups and cones are of high-grade, uniformly hardened, polished and dust-proof. The reel has five blades of best knife steel, and is adjusted to the Cutter Bar by a special adjusting and locking device. Wheels, 10 inches in diameter.

14 in.....	\$18.50
16 in.....	19.25
18 in.....	20.00
20 in.....	20.75

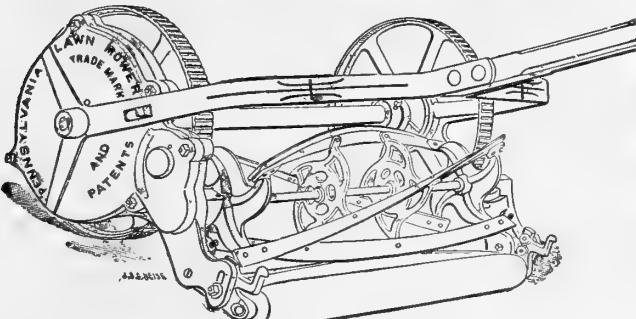
CONTINENTAL HIGH WHEEL MOWER



This very high-grade machine will cut fine grass two inches high; also grass six to eight inches. We highly recommend this machine.

	List.	Retail.		List.	Retail.
15 ins.....	\$25.00	\$22.50	19 ins.....	\$31.00	\$27.90
17 ins.....	28.00	25.20	21 ins.....	34.00	30.60

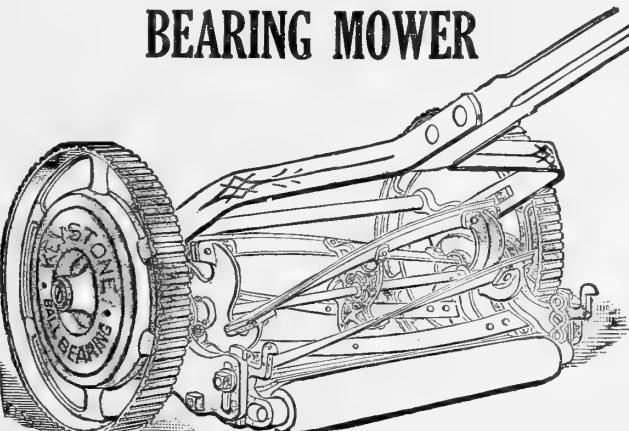
PENNSYLVANIA HIGH-WHEEL MOWER



This high-grade Mower is constructed for cutting ordinary grass, as well as grass from 6 to 10 inches high. Wheel, 10½ inches; cylinder, 6½ inches. Four crucible steel knives.

	List.	Retail.		List.	Retail.
15 ins.....	\$25.00	\$22.50	19 ins.....	\$31.00	\$27.90
17 ins.....	28.00	25.20	21 ins.....	34.00	30.60

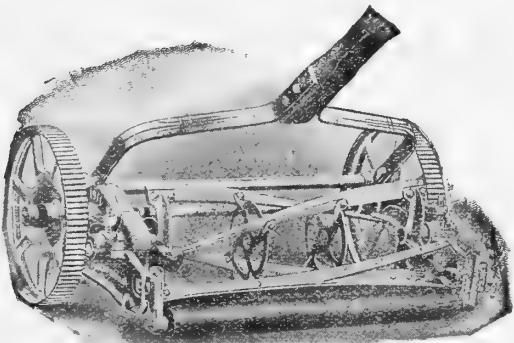
GREAT AMERICAN BALL-BEARING MOWER



Every detail of this Mower is in keeping with the high grade of the Pennsylvania and Continental. Can be regulated to cut from ½ to 1½ inches from the ground.

	List.	Retail.		List.	Retail.
15 ins.....	\$25.00	\$17.50	19 ins.....	\$31.00	\$21.70
17 ins.....	28.00	19.60	21 ins.....	34.00	23.80

PHILADELPHIA HIGH-WHEEL MOWER STYLE E



Driving Wheels, 10 inches; cylinder, with four knives; diameter of cylinder, 6½ inches; train of three gears; double ratchet; removable box caps to take out cylinder for sharpening.

15 ins.....	List price, \$25.00	Retail price, \$22.50
17 ins.....	List price, 28.00	Retail price, 25.20
19 ins.....	List price, 31.00	Retail price, 27.90
21 ins.....	List price, 34.00	Retail price, 30.60

Golf Roller Mower

Peculiarly adapted for use on Golf and Tennis Grounds.

The heavy iron roller, together with the speed of the revolving knives, produces the very best results, leaving a smooth-cut surface on the lawn.

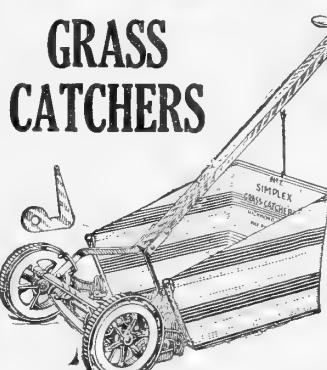


The adjustments are simple and the durability and efficiency beyond question.

Size.	Special Price.
12-inch, 4 blades.	\$18.00
14-inch, 4 blades.	20.40
16-inch, 4 blades.	22.80
18-inch, 4 blades.	25.20
20-inch, 4 blades.	27.60

For 6 blades, add \$1.00.

GRASS CATCHERS



No. 110—CANVAS CATCHER, made of fine quality duck, heavy galvanized wire frame; adjustable steel hooks; will fit any mower, 12 to 16 inches wide \$1.00

No. 110H—CANVAS BOTTOM CATCHER, same as No. 110, but will fit mowers, from 14 to 20 inches wide... \$1.15

No. 160H—METAL BOTTOM CATCHER, 13 inches deep, made of heavy duck; heavy galvanized wire frame; adjustable steel hooks, will fit any mower. Also equipped with our perfection handle, a great convenience. Adjustable to mowers, 12 to 16 inches wide..... \$1.50

No. 165H—METAL BOTTOM CATCHER, same as No. 160-H, but for mowers, 16 to 20 inches wide..... \$1.75

No. 250H—METAL BOTTOM CATCHER, 16 inches deep, made of heavy duck; heavy galvanized wire frame; adjustable steel hooks; will fit any mower; equipped with perfection handle. Adjustable to mowers 12 to 16 inches wide \$1.75

No. 255H—METAL BOTTOM CATCHER, same as No. 250-H, but for mowers, 16 to 20 inches wide..... \$2.00

LAWN MOWER REPAIRING AND SHARPENING

OUR well-equipped shop and competent mechanics, that have been repairing and sharpening lawn mowers for years, assures you of a first-class job. In a season we repair many hundreds of lawn mowers, and as most of them have to be repaired and sharpened before the first grass mowing, you will readily see the necessity of sending your mower in early. During the early season we run our repair department many times at night that we might give our patrons prompt service.

We find that we are many times delayed in getting work out promptly by the necessity of having to send out of the city for repairs for mowers that we do not sell. In fact many machines come in that we are unable to get repairs for, these machines give very little service and are possibly bought because they are cheap in price. It pays to buy a mower that not only can be repaired, but one that will give continued service. The better the mower the less repairing necessary.

Our repair department does not confine its operation to sharpening and repairing lawn mowers only. We are in position to do general repair work and solicit your patronage in other lines of work.

For your convenience, look over your lawn mower during the winter and send it in during the late winter months. This will give our mechanics ample time to give it the attention required, and will save you the possibility of being inconvenienced by having to wait your turn later on.

All work that is turned out is in order to do the work required and we recommend that mowers should be left as our mechanics adjust them; this is a most important matter, as no matter how well a mower is sharpened, if it is not adjusted properly, it will not do satisfactory work.

Buy good Lawn Mowers, and have them sharpened regularly and you will reduce Lawn Mowing to a pleasure.

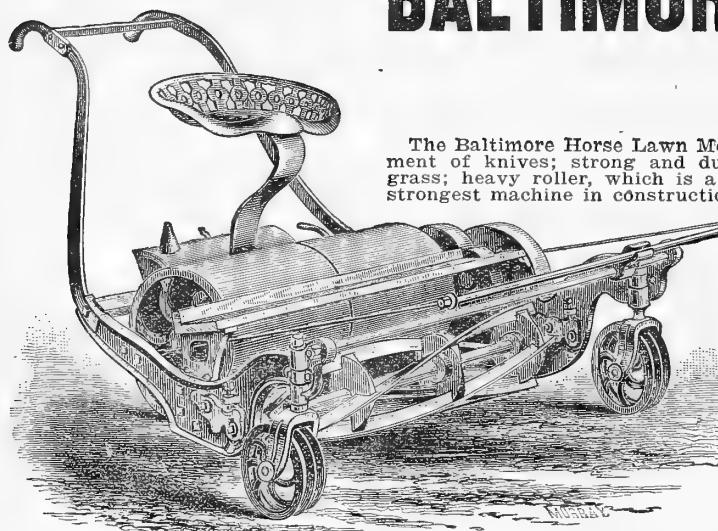
BALTIMORE HORSE LAWN MOWER

The Baltimore Horse Lawn Mower is made of best material; most satisfactory adjustment of knives; strong and durable; open castor wheels which do not press down the grass; heavy roller, which is a necessity to keep the lawn in good order; simplest and strongest machine in construction on the market, and most economical as far as repairs are concerned.

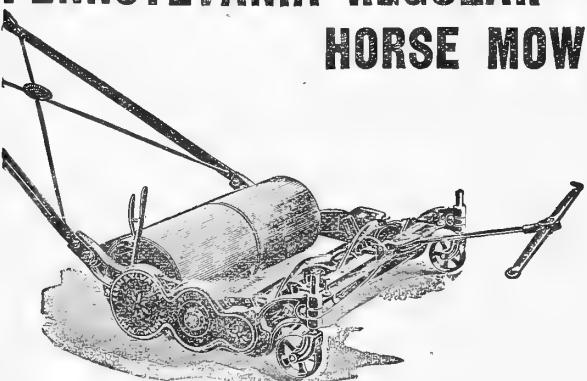
It is made with shafts and seat, and also with draft rod. For hilly lawns, we recommend shafts and seat, but for level lawns with many trees and shrubbery, we recommend the draft rod, as it enables the driver to work the machine close to them. See it work, and you will be convinced that it is the most practical machine made.

Our Spec. Price.

25-inch Machine, with Draft Rod.....	\$65.00
30-inch Machine, with Draft Rod.....	100.00
30-inch Machine, Shafts and Seat.....	110.00
35-inch Machine, Shafts and Seat.....	135.00
40-inch Machine, Shafts and Seat.....	170.00
Shafts for 30-inch Machine.....	12.50
Shafts for 35-inch Machine.....	15.75
Shafts for 40-inch Machine.....	18.75
Seats, less Springs for 30-in. Machine and over.....	2.25
Seat Springs for 30-in. Machine and over.....	4.00



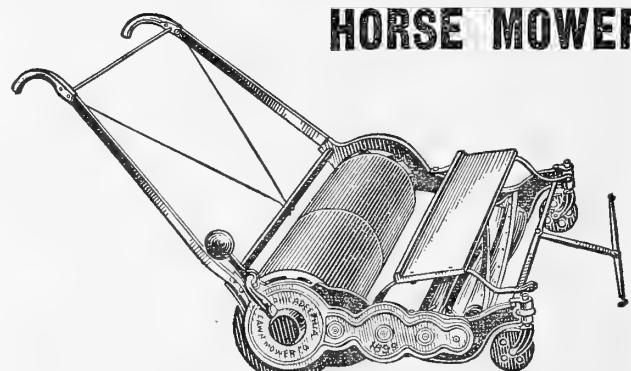
PENNSYLVANIA REGULAR HORSE MOWER



Furnished with handles and draft irons, the latter arranged to swing to the side, thus permitting the horse to walk on the cut grass.

30-inch Machine, with Draft Rod.....	\$100.00
38-inch Machine, with Draft Rod.....	130.00
30-inch Machine, with Shafts and Seat.....	120.00
38-inch Machine, with Shafts and Seat.....	150.00
Shafts and Seats as Extras.....	27.50

OLD STYLE PHILADELPHIA HORSE MOWER



Cylinder open or solid, with 4 blades, for 30-inch only. Cylinder open on 35-inch only. Height of Driving Roller, 11 1/4 inches. Diameter of Cylinder, 6 1/2 inches.

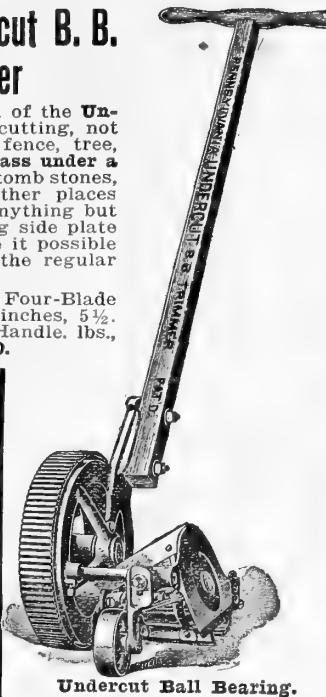
30-inch Machine, with Draft Rod.....	\$100.00
35-inch Machine, with Draft Rod.....	120.00
30-inch Machine, with Shafts and Seat.....	125.00
35-inch Machine, with Shafts and Seat.....	145.00

Pennsylvania Undercut B. B. Lawn Trimmer

The unique construction of the **Undercut Trimmer** permits cutting, not only close up to a wall, fence, tree, etc., but it will get the grass under a fence or rock-cut base of tomb stones, house foundations and other places hitherto out of reach of anything but hand shears. The slanting side plate and conical cylinder make it possible to cut all grass left by the regular style of lawn mower.

9½-inch Drive Wheel. Four-Blade Cylinder. Width of Cut, inches, 5½. Weight, boxed, including Handle, lbs., 32. **PRICE, EACH, \$12.50.**

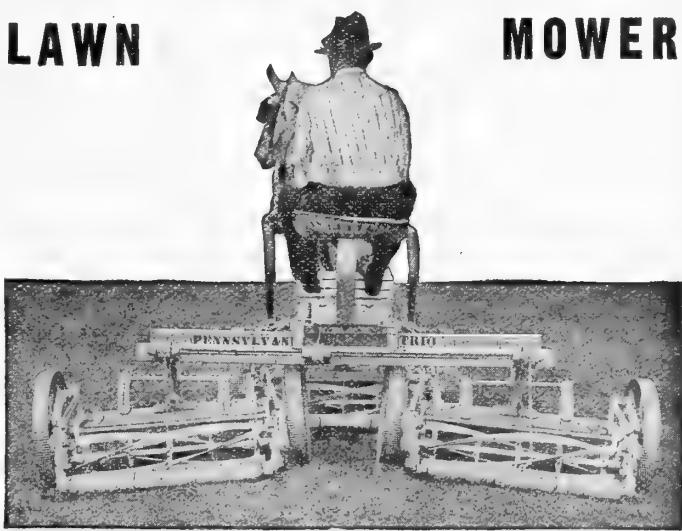
Horse Lawn Boots



Fastened firmly to hoof instead of around ankle, giving free action to horse's feet. Rolling toe prevents cutting of turf. Width inside, No. 2, 5½ inches; No. 4, 6½ inches; No. 6, 7 inches—the right sizes for Nos. 2, 4 and 6 horse-shoes. No. 0 Mule and No. 1 Pony. Special sizes to order. Width inside, 4 inches; 4½ inches.

OUR SPECIAL PRICE, Per Set, \$15.00.

THE "PENNSYLVANIA TRIO" LAWN MOWER



is the last word in horse-drawn mowers for golf courses and large estates.

Self-sharpening Crucible Steel Blades throughout. Bottom knife bolted solidly to the side plates, eliminating any tendency to become twisted or strained. Adjustments quickly made by two bolts.

Can't Jump When Cutting Heavy Grass.—Automatic regulation cylinders down in proportion to the pull of the machine.

New Lifting Device allows mower to leave four inches of grass "in the rough."

Short Turning Radius.—The single mower is in the front, allowing an exceedingly short turning radius without injury to the turf.

Semi-Floating Axle and auto-type ball-bearing wheels insure great strength and easy running. **Width of Swath, 86 inches.**

PRICE, \$400.00.

Extra Units, \$100.00.

FULLER & JOHNSON MOTOR LAWN MOWER

A BETTER LAWN AT LOWER COST.

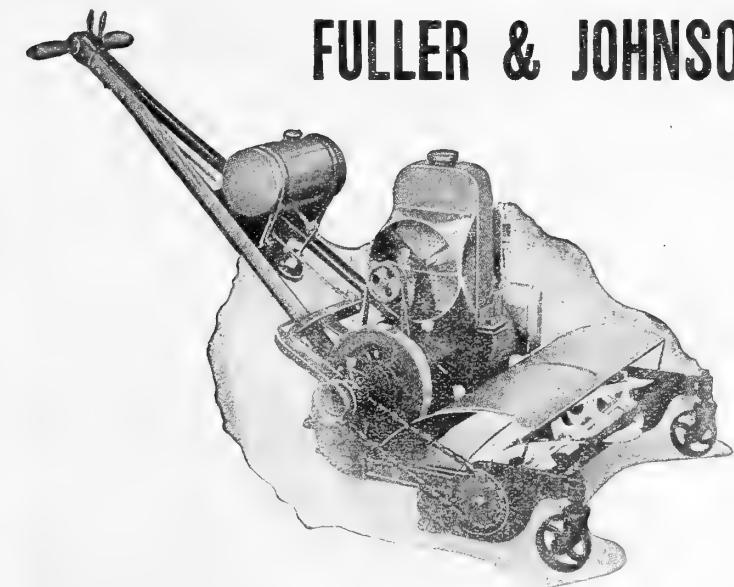
The problem of keeping the lawn in an attractive condition is one which confronts all superintendents of parks and cemeteries and owners of private estates.

On any acreage at all the hand mower is out of the question, while the horse-drawn mower injures the turf and requires the use of the hand mower for trimming, besides entailing the maintenance of the horse.

The cutting cost embraces three factors: investment in the mower and interest; up-keep, not including interest; expense of labor.

The aim is to maintain lawns in an unbroken surface with an underlying texture that will insure an even growth.

The **Fuller & Johnson Motor Lawn Mower** represents a moderate investment, the interest on which is small. It will cut five acres a day at a cost of a gallon of gasoline, a pint of lubricating oil and the wage of an intelligent day laborer. The up-keep amounts to little if the mower is kept oiled, cleaned and sheltered from the inclemencies of the weather. It will cut open acreage without ridges or marring the turf; it will cut close to walls, trees and other obstacles; it will negotiate hills of 35 per cent. grade on its own power; it will cut low and spongy spots evenly and without leaving a trail to spoil the continuity of the surface.



The **Fuller & Johnson Motor Lawn Mower** therefore combines power cutting capacity with the flexibility of a light hand mower. It does a finished job in one operation.

Unit-built, it is perfectly balanced and is the one practical motor-driven lawn mower. In view of the scarcity of day labor, it is the economical solution of all lawn cutting problems. It will replace two men out of three and will pay for itself in a single season. **Send for Illustrated Catalogue.**

The **Fuller & Johnson Motor Lawn Mower** consists of a light and powerful gasoline motor mounted on the frame of a traction roller and arranged to propel a 25-inch lawn mower unit.

Motor: The motor is a single-cylinder 4-cycle vertical motor having 3-inch bore and 3-inch stroke, running 1200 R. P. M. The speed of the motor is controlled by a governor.

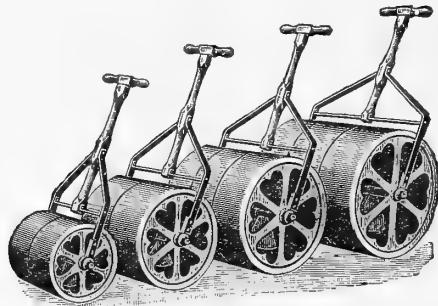
Lawn Mower Unit: The lawn mower unit consists of a cutting reel 25 inches long and 6½ inches in diameter carried in liberal bronze bearings in a light rigid frame. This frame is carried on two caster wheels and a long wooden roller. The lawn mower unit is attached to the main frame of the machine in the most flexible manner, so that the mower may follow the inequalities of the surface of the ground closely.

WRITE FOR PRICES.

HAND LAWN ROLLER

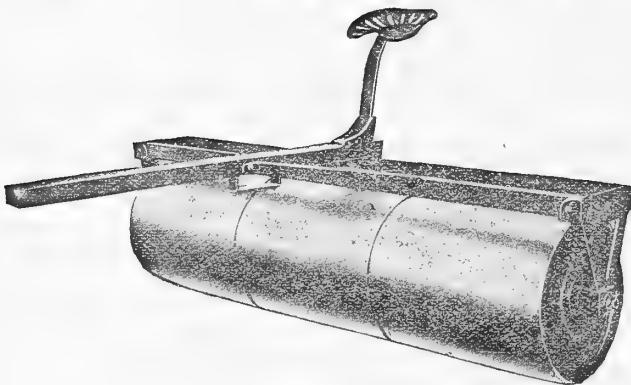
(CAST IRON.)

These rollers are especially desirable; they will not dent; wet grass and dirt does not cling to them, owing to their highly polished surface. Have counterbalance, which holds up the handle and makes it easy to push.



No.	No. Sec.	Width Face.	Diam. Sec.	Total Length.	Weight.	Our Special Price.
4 or 504	2	10 in.	20 in.	20 in.	250 lbs.	\$23.25
6 or 507	2	10 in.	20 in.	24 in.	300 lbs.	27.75
9 or 509	2	10 in.	24 in.	20 in.	400 lbs.	36.75

STEEL LAND ROLLERS



The above cut represents our **Three-Section Land Roller**. Heretofore attempts have been made to construct an all-steel roller, with the result that the steel brackets employed in this construction invariably allowed the rolls to get out of alignment, thus quickly wearing out the boxes. To avoid this tendency, we have substituted heavy iron brackets to support the bearings and which entirely surrounds them. This construction insures true alignment and eliminates constant expenditures for repairs and replacing boxes. An additional feature of this roller is the blocking in of the frame under the pole with a 4-inch hard wood block. This construction gives the roller perfect rigidity and absolutely springing of the steel frame when turning around, crossing dead furrows, etc. It is further braced with steel braces from the frame to the pole, which not only adds strength to the roller, but prevents breaking of the pole.

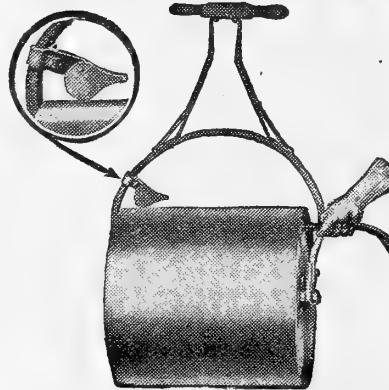
The Drums are 24 inches in diameter, made from extra heavy hard steel sheets and are not easily indented. The ends are made from pressed steel and fitted with heavy cast bearings which allows each roll to turn independently.

The shaft is 1 1/4-inch high carbon steel.

Sections	Length feet	Diameter inches	Weight lbs.	Our Special Price
2	8	24	550	\$42.50
3	8	24	585	45.00

Price does not include Doubletrees and Neck Yoke.
Doubletrees and Neck Yoke.....

WATER BALLAST LAWN ROLLER



No-Tip attachment holds handle upright when not in use.

This roller can be filled with water to any desired weight. It can thus be regulated to suit soft turf, firm lawns or driveway, tennis court, etc. It can be emptied for storing away, making it light and easy to handle. The drum is high carbon steel with all seams electric welded. Edges are rounded back to prevent cutting of lawns, courts, etc.

The axle is mounted on roller bearings, making the roller run very easily.

Order No.	Diam. of Drum.	Length of Drum.	Weight, Empty.	Weight Filled with Water.	Price.
1824 or 602	18 in.	24 in.	80 lbs.	310 lbs.	\$15.60
2424 or 603	24 in.	24 in.	115 lbs.	500 lbs.	20.40
2430 or 604	24 in.	32 in.	130 lbs.	650 lbs.	22.80

HORSE LAWN ROLLER

GRITCO-D ONE HORSE LAWN ROLLER

Shafts are made very substantial and well braced. Double leaf spring seat, therefore less jar than on other lawn rollers. Removable self-oiling bearings. Axle 1 1/4-inch diameter. Can be weighted to any desired weight. Just the thing for small farms, lawns and truck farms.



Length, Feet.	Diameter, Inches.	No. of Sections.	Our Special Price.
4	26	2	\$37.50

The above cut represents our **Three-Section Land Roller**. Heretofore attempts have been made to construct an all-steel roller, with the result that the steel brackets employed in this construction invariably allowed the rolls to get out of alignment, thus quickly wearing out the boxes. To avoid this tendency, we have substituted heavy iron brackets to support the bearings and which entirely surrounds them. This construction insures true alignment and eliminates constant expenditures for repairs and replacing boxes. An additional feature of this roller is the blocking in of the frame under the pole with a 4-inch hard wood block. This construction gives the roller perfect rigidity and absolutely springing of the steel frame when turning around, crossing dead furrows, etc. It is further braced with steel braces from the frame to the pole, which not only adds strength to the roller, but prevents breaking of the pole.

The Drums are 24 inches in diameter, made from extra heavy hard steel sheets and are not easily indented. The ends are made from pressed steel and fitted with heavy cast bearings which allows each roll to turn independently.

The shaft is 1 1/4-inch high carbon steel.

Sections	Length feet	Diameter inches	Weight lbs.	Our Special Price
2	8	24	550	\$42.50
3	8	24	585	45.00

5.00

GRITCO-C DOUBLE GANG PULLERIZER WITH POLE

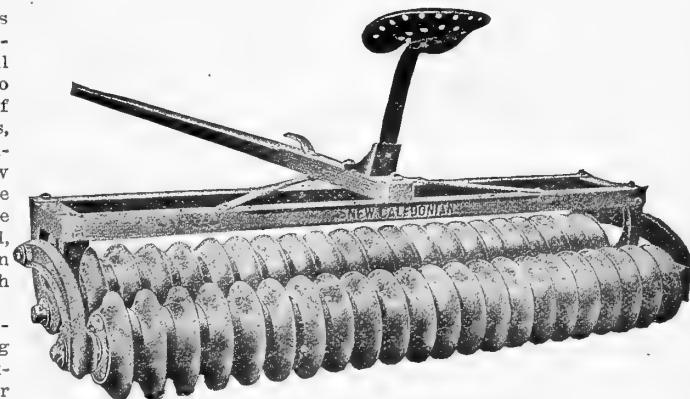


Field Showing Work of Double Gang Pulverizer.

In presenting this **Double Gang Pulverizer**, we wish to call special attention to the construction of the end brackets, which are so constructed as to allow the trailer to raise and fall with the variations of the soil, thus insuring an even pressure from both gangs at all times.

The trailer is detachable, by removing four bolts, thus making a single pulverizer where lighter work is required. The trailer is so arranged that the cutting edge of each disc comes between two of the front ones, thereby pulverizing the entire ground and leaving it thoroughly packed in small ridges, thus retaining the moisture.

This pulverizer is furnished with hard maple bearings, housed in, which will not cut out by grit and oil, as do most of the so-called roller or other metal bearings.



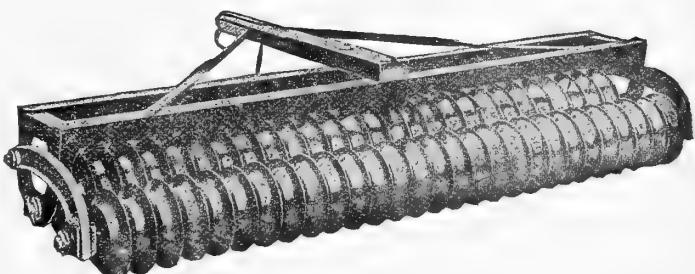
Size	Front Gang	Rear Gang	Weight	Price
No. 158 8-foot	21-15 inch Discs	22-12 inch Discs	1150 lbs.	\$85.00

GRITCO C-PACKER AND PULVERIZER FOR TRACTOR

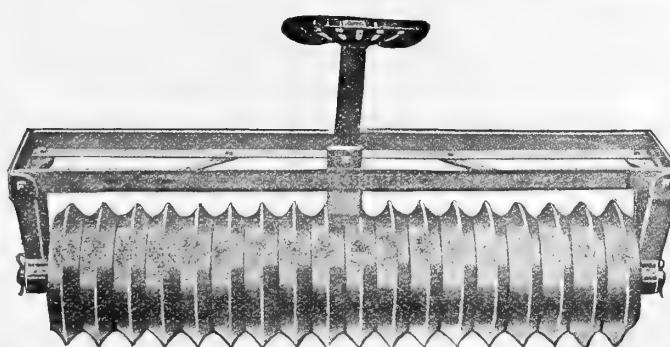
If you own a tractor, this Packer and Pulverizer will recommend itself to you. It is made like the smaller sizes, except parts are heavier and stronger. Braces are long and strong, and are bolted through the short tongue in front of the draw bolt on the clevis. A ring is provided to hitch to draw pin on tractor.

This machine will do more real work in putting the ground in order than any other machine on the farm.

No.	Size	Front Gang	Rear Gang	Weight	Price
210	10 ft.	27-15 in. discs	28-12 in. discs	1450 lbs.	\$125.00



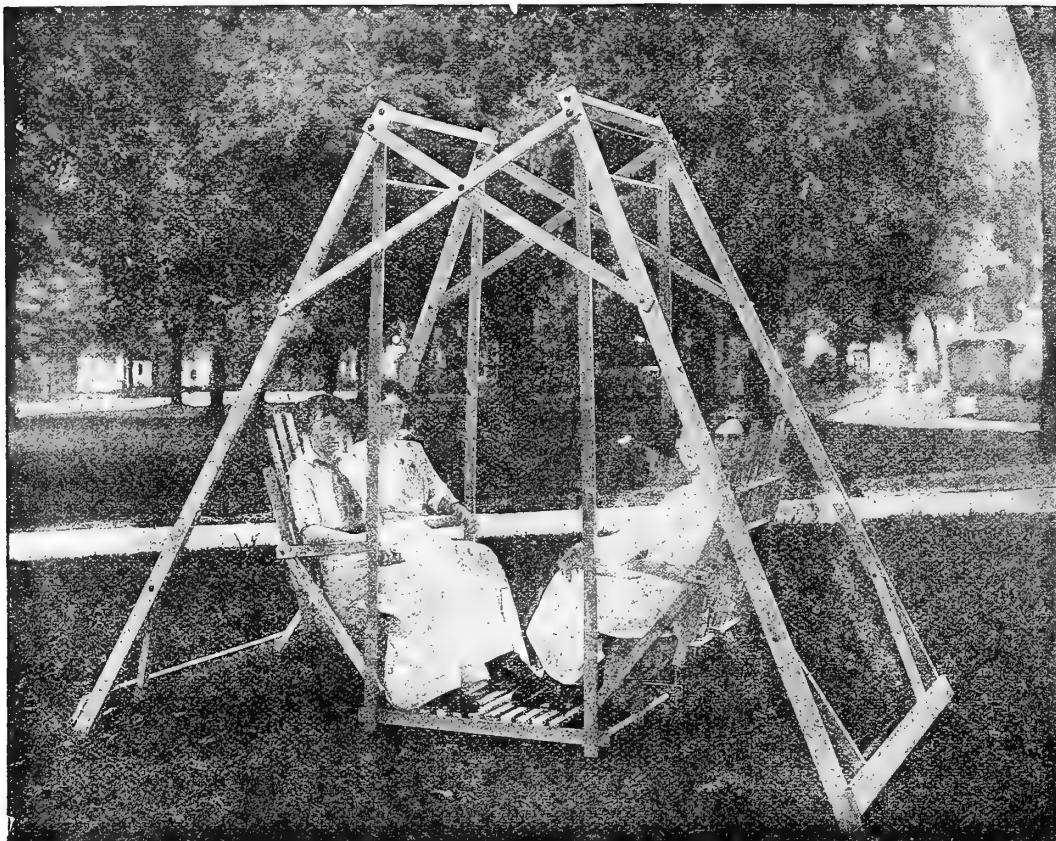
GRITCO-C SINGLE PULVERIZER



The Gritco-C Single Soil Pulverizers and Packers are used by up-to-date farmers for rolling meadows, crushing lumps, packing soil, and conserve moisture. They are now recognized as a necessary implement on every farm.

The frame is made from angle steel firmly bolted to heavy cast end brackets. Axle is 1 1/4-inch cold rolled steel. Boxes are hard maple, which can be easily renewed. Discs are 4 inches wide cast in one piece, fitted closely together. One side of each end disc is solid to keep out stones and dirt. Two or more discs can be removed for straddling corn or other crops, split collars holding remaining rolls in place.

No.	Size	Gang	Weight	Price
188	7 ft.	24-18 in. discs	1000 lbs.	\$72.00

**LAWN SWING.
THE BONANZA**

Accompanying cut represents our "Bonanza" four-passenger Lawn Swing. It is also built in two-passenger. Made of hardwood, with $\frac{3}{4}$ -inch bolted frame.

Has three-seat and foot-rest adjustments. Frame painted red; balance of swing golden oak. Hooks where swing bars hang on iron rods at top of frame.

Dimensions.

Height 9 ft.
Seat Space..... 34 in.
Ground Space, 9 ft.
4 in. x 6 ft.

Prices. Our
List Special
Price. Price.
2-Passenger: \$12.80 \$8.00
4-Passenger: \$16.00 \$10.00

**WINNER
LAWN SWING.**

This Lawn Swing is made of hardwood, frame painted a bright vermilion, chairs, hangers and foot-rest a beautiful golden oak, and is a splendid value for the money.

Our
List Special
Price. Price.
4-Passenger: \$13.60 \$8.50

**COMPETITION
LAWN SWING.**

Our
Price. Price.
List Special
4-Passenger: \$12.80 \$8.00



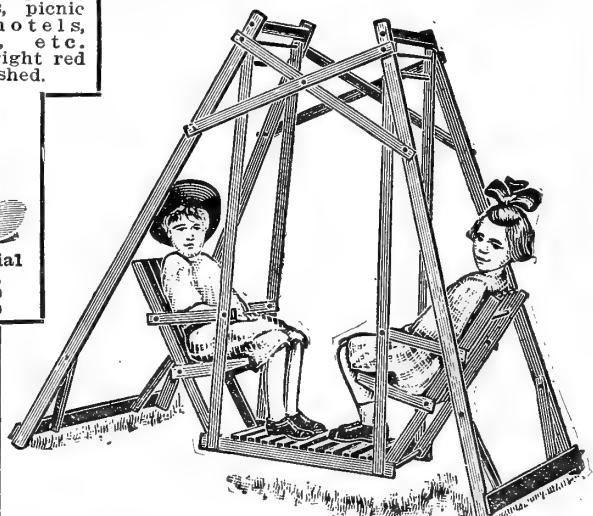
Attractive and gives plenty of room. Just the thing for parks, porches, picnic grounds, hotels, cemeteries, etc. Painted bright red and varnished.

List Price. Our Special
Four Feet \$11.00 Price.
Five Feet 13.50 \$6.50
\$8.00

**Lawn Settee**

High back, easy rest. Finished in golden oak, or painted red. Heavy slats are used in these settees; nothing cheap about them. Have the right shape for solid comfort. The best low-priced settee on the market. Can be folded flat when put away for the winter.

Our
List Special
Price. Price.
Golden Oak, each \$4.80 \$3.00

CHILD'S SWING

New and original idea, cutting down the high-derrick swing to meet the demand of the small children, and cater to their delight and welfare. The most useful article for the entertainment of the children. Can be used in the nursery, parlor, on the porch or lawn. Useful all the year around. Frame is painted bright vermilion, chairs and hangers golden oak finish. Floor space, 4 feet 11 inches by 3 feet 4 inches.

Our Special
List Price. Price.
2-Passenger..... \$9.60 \$6.00

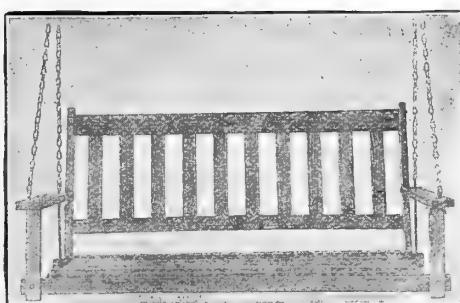
No. 8 MISSION PORCH SETTEE



1 1/4-inch oak stock, very strong and substantial, mission effect, smooth and well finished, saddle seat. Put together with rods and bolts. Ceiling hooks and galvanized chains with each settee. Enough slant in back to make it most desirable and comfortable.

	List Price.	Our Special Price.
No. 8—4-foot.....	\$11.20	\$7.50
No. 8—5-foot.....	12.80	8.50
No. 8—6-foot.....	16.00	10.00

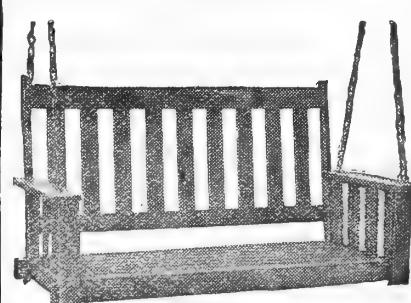
No. 6 PORCH SETTEE



Made from 1-inch oak stock. In design the lines are very much the same as the No. 8, made with formed seat, as shown in cut, but without the paneled ends. The swing is equipped with best galvanized swing chains, and finished in weathered oak.

	List Price.	Our Special Price.
No. 6—3 1/2-foot.....	\$5.60	\$4.50
No. 6—4-foot.....	7.20	5.00

No. 7 PORCH SETTEE



Very popular and durable. Finished in weathered oak. All slats bolted to frame; no rivets.

	List Price.	Special Price.
No. 7—4-foot.....	\$8.80	\$6.00
No. 7—5-foot.....	10.40	7.00

STYLE No. 34 DROP HEAD



At the price we are listing this Machine we are placing a strictly high-grade Machine in the reach of all.

The furniture is oak and finely finished, an ornament to any home.

Has High Arm Drop Head, Flat Top Tension with a convenient Thread Release, and the Needle Bar serves as a Thread Take-up in conjunction with a Spring Thread Controller.

A strong, well-made Machine, with a Positive Feed, Large Cylinder Shuttle and an Automatic Bobbin Winder.

The Steel Pitman with ball bearings insures ease in running and adds greatly to the appearance and durability of the Machine.

The attachments are free, and include Tucker, Hemmers, Binder, Quilter, etc., Oil Can full of oil, Screw Driver and full directions with every Machine.

Weight, crated for shipment, 110 pounds.

OUR SPECIAL PRICE..... \$40.00

SEWING MACHINE NO. 95-A



Head, Automatic Lift. Quartered Oak Furniture. Positive Cam Drive Take-up, Automatic Tension Release, Capped Needle Bar, Automatic Bobbin Winder, Positive Stitch Adjustment with a Reliable Scale, Long Feed Bearing to insure uniform length of stitch on all surfaces, handsomely enamelled and decorated.

Has Steel Pitman with ball bearings. This is a most important improvement, as it not only contributes materially to the easy-running qualities, but also adds greatly to the appearance and durability of the Machine.

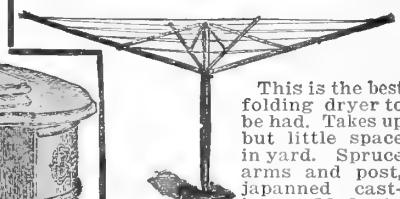
A complete set of attachments, oil can full of oil and full set of directions with each Machine.

The highest grade Machine made for such a small price.

Weight, crated for shipment, 125 pounds.

OUR SPECIAL PRICE..... \$50.00

Folding Clothes Dryer



This is the best folding dryer to be had. Takes up but little space in yard. Spruce arms and post, japanned castings. Made in two sizes.

Our Special Price.
No. 1 Dryer carries 110 ft. line..... \$7.50
No. 2 Dryer carries 150 ft. line..... 8.00

REMOVABLE STEEL CLOTHES-LINE POST



Complete with base, Our Special Price, \$3.00.

CYCLONE ORNAMENTAL GALVANIZED LAWN FENCE

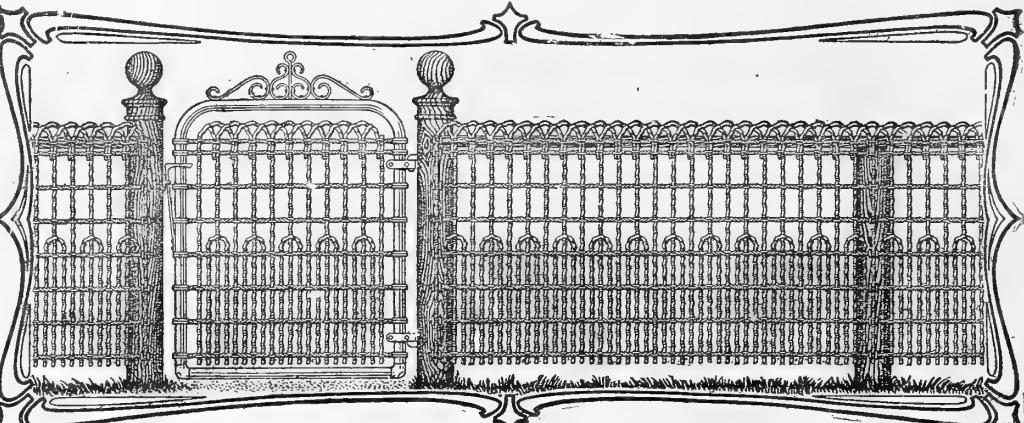
The Style F Cyclone Lawn Fence is considered by us the most attractive and most practical pattern made by the factory, and we catalogue this style exclusively. The manufacturers make a number of other styles, special circulars of which we will be pleased to send you on application. The characteristic features of Cyclone Fence are the careful uniformity of the weaving, the full-gauge wires which are used, the extra deep crimping of picket wires, which adds greatly to the beauty and strength of fence, the secure manner in which these pickets are locked in the double cable wires and the general strength of the whole fabric. The wire is carefully selected, and all of these features count for the extra lasting qualities of Cyclone Fence. With every full roll of Cyclone Fence, a fence stretcher is furnished gratis. The lawn, the yard and the home are given the appearance of comfort and attractiveness by the use of a first-class wire fence, and from a sanitary and healthful standpoint, a wire fence is far more desirable than the old style board fence.

Style F Cyclone Fence is made of No. 9 heavily galvanized wire spacing between uprights at the bottom, being 1½ in., and at the top 2½ in.; the cables are of heavily galvanized wire, spaced about six inches apart, except the two at top, which are spaced 2¾ in. apart; furnished regularly in rolls of 10 rods, or 165 feet. Any length cut to order.

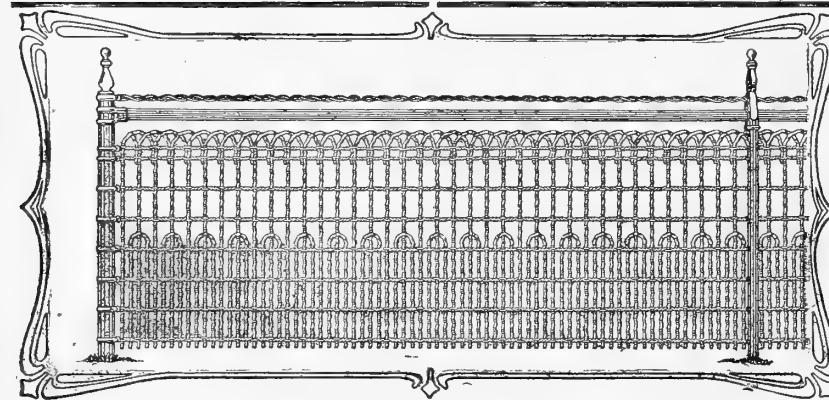
Prices of Cyclone Fencing.

Style F.	List	Our Price.
Height	Per Ft.	
24 in.	18c.	14½c.
30 in.	20c.	16c.
36 in.	22c.	17½c.
42 in.	24c.	19½c.
48 in.	28c.	22½c.

These prices are for the fence fabric only, and do not include posts. For prices of complete fence see below.



This Illustrates Style F Cyclone Fence Erected on Wooden Posts.



Imperial Complete Lawn Fence.

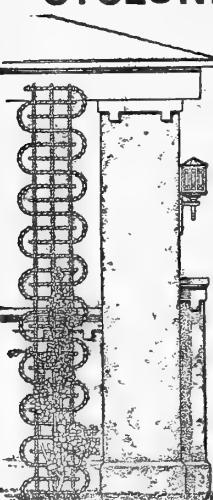
CYCLONE IMPERIAL COMPLETE FENCE

The Imperial is our leading and most popular style of fencing. It is a combination of simplicity and artistic beauty—a rich-looking, dignified, handsome design, suitable for any home. Has two-inch tubular corner posts, and line posts are made of two 1½-inch tubes, placed one-half inch apart, allowing fabric to pass between. Rail is 1½ in. in diameter, top cable has four-strand heavily galvanized braid wire, frame work is painted, or can be furnished galvanized at an additional cost.

Height.	Our Price.
30-in.	69c.
36-in.	74c.
42-in.	78c.
48-in.	85c.

The above prices include fence fabric, painted posts and top rail, and top braid. If gates are wanted, do not deduct from fence for gateways, but add \$2.00 net on account of walk gate, and \$4.00 net on account of drive gate.

CYCLONE TRELLIS

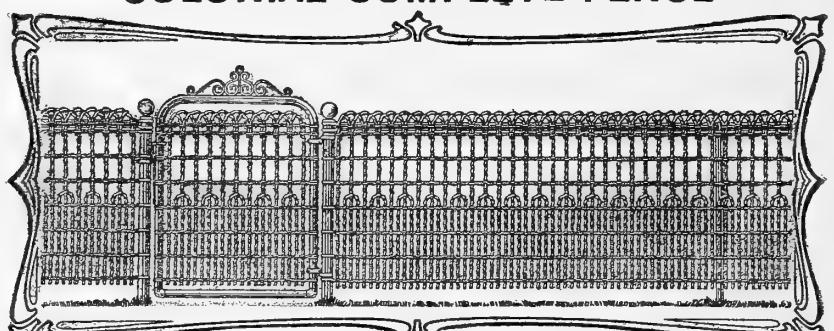


Train your flowers on this trellis, which is an attractive and practical trellis at a few cents per foot. Cyclone Trellis is made of strong, durable, galvanized wire, which will keep its shape, and last almost indefinitely. Easily put up and cut to any length desired.

18 in. width. List Price, per ft., 8c. Our Price, 7c.

24 in. width. List Price, per ft., 10c. Our Price, 9c.

COLONIAL COMPLETE FENCE

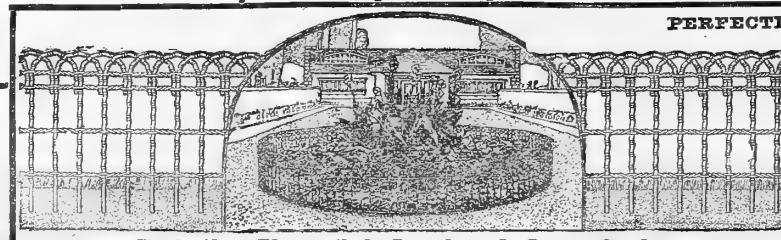


This is also a very popular fence, as the illustration shows. No top braid is used, and top finished of fabric extends above rail. Prices of Colonial Fence same as Imperial Complete Fence.

PERFECTION FLOWER BED GUARD

This flower-bed guard is 18 in. high. Has 4 cables, which are made of two No. 12½ wires. Has No. 9 crimped uprights. All heavy galvanized pickets project for insertion in ground. Requires no posts. Can be cut to length to any bed. It provides protection against dogs and chickens. List Price, per Foot, 13c. Our Price, 11c.

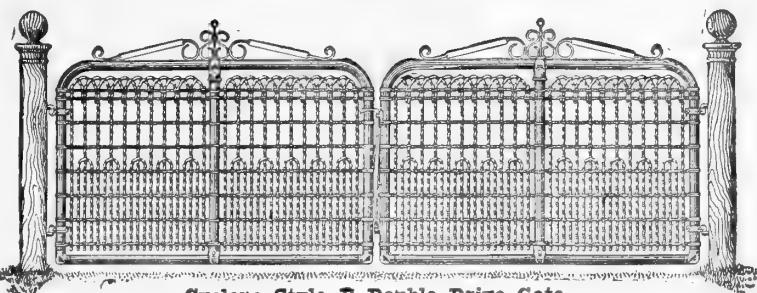
Cyclone Trellis.



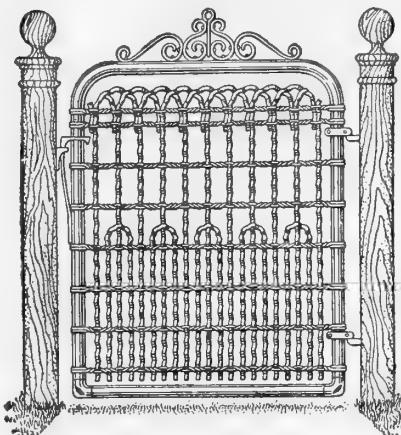
Perfection Flower-Bed Guard and Lawn Border.

CYCLONE ORNAMENTAL GATES STYLE F

The frames are made of high-grade heavy steel tubing, and are regularly finished in black paint, although galvanized frames can be furnished at an additional cost. Black-painted frames are always shipped unless otherwise specified. Filling of these gates is the regular Style F—Cyclone Fabric, described on opposite page, and as shown by illustrations, the gates have ornamental scroll tops. In giving the dimensions of gates, state first the height and then the width. The width of Cyclone Gate means the distance between the posts. The factory makes proper allowance for hinges and latch.



Cyclone Style F Double Drive Gate.

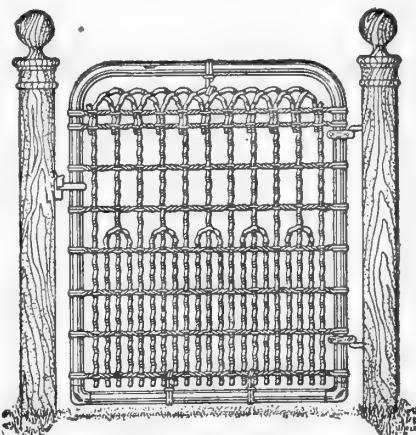


Cyclone Style F Walk Gate.

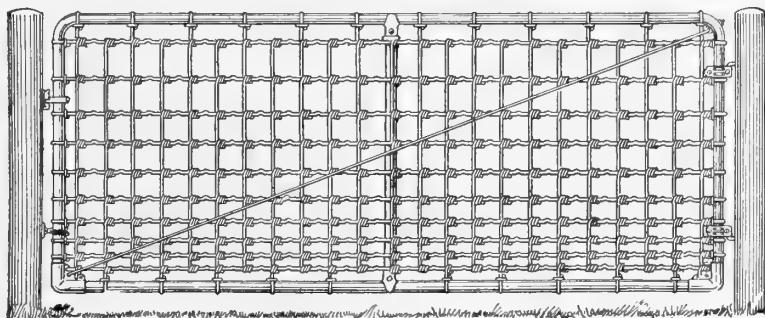
WALK AND SINGLE-DRIVE GATES. 30, 36, 42 or 48 Inches High.		
Width, Feet.	List Price.	Our Price.
3 Walk.....	\$4.80	\$3.60
3½ Walk.....	5.20	3.90
4 Walk.....	5.60	4.20
8 Drive.....	10.00	7.50
10 Drive.....	12.00	9.00
12 Drive.....	14.00	10.50

DOUBLE DRIVE GATES. 30, 36, 42 or 48 Inches High.		
Width, Feet.	List Price.	Our Price.
8.....	\$11.60	\$8.70
10.....	14.00	10.50
12.....	15.60	11.70
14.....	17.20	12.90

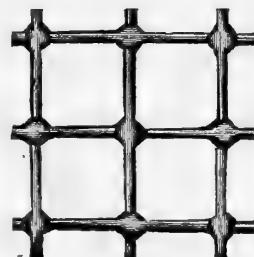
CYCLONE UNIVERSAL GATE. A very ornamental gate, similar to regular lawn gate without the scroll top.		
UNIVERSAL WALK GATE. 36, 42 or 48 Inches High.		
Width, Feet.	List Price.	Our Price.
3.....	\$3.80	\$2.85
3½.....	4.20	3.15
4.....	4.80	3.60



Universal Walk Gate.



Galvanized Steel Wire Cloth



Made from heavy wire thoroughly galvanized after weaving. This insures long life, as every part of the wire is coated by the dipping process.

Used largely in corn cribs to make them mice and rat proof, also for sieves and fan screens and over windows for protection.

We carry it in stock in widths 2, 2½, 3 and 4 foot.

The word mesh means number of meshes to the inch (2x2, 2 to the inch; 4x4 mesh, 4 to the inch, etc. Full rolls contain 100 running feet.

PRICE.

Full Rolls.	Less Than Full Rolls.
\$0.06	\$0.07½
.06½	.07½
.06½	.07½

STYLE A FARM GATES

Frames are made of high carbon steel tubing 1 ¾ in. outside diameter. Spacing is of heavy weight farm fence, with the uprights every six inches. Frames regularly painted black. Can be furnished galvanized at an additional cost. Unless otherwise ordered, painted frames will be shipped. Furnished complete with hinges and latch. Width means width of gateways. Factory makes allowance for hinges and latch.

Style A—Single Drive Gates. 36, 42, 48 or 54 Inches High.

Width, Feet.	List Price.	Our Price.
8.....	\$8.00	\$6.00
10.....	9.00	6.75
12.....	10.00	7.50
14.....	11.60	8.70
16.....	12.60	9.20

Diamond Mesh Poultry Netting

The wire we offer is No. 20, double twist, 2-inch mesh, thoroughly galvanized. Sold in bales of 150 running feet.

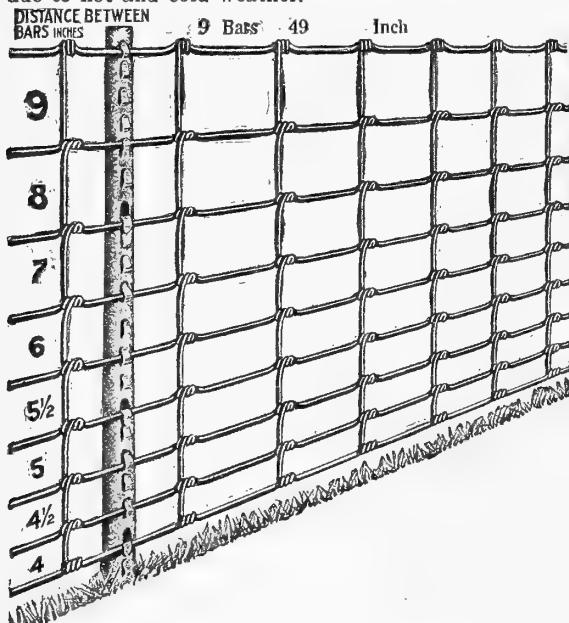
No. Wide. Feet.	In. Sq. Feet.	Price Per Bale.	Price Per Pound.
Galv. After Weaving.			
20 12	150	\$2.14	\$1.60
20 18	225	3.08	2.30
20 24	300	3.92	2.95
20 36	450	5.35	4.00
20 48	600	7.13	5.35
20 60	750	8.91	6.70
20 72	900	10.69	8.00
Galv. Before Weaving.			
20 12	150	\$2.14	\$1.45
20 18	225	3.08	2.10
20 24	300	3.92	2.65
20 36	450	5.35	3.60
20 48	600	7.13	4.85
20 60	750	8.91	6.05
20 72	900	10.69	7.20

Price, 1½c. per square foot in less than bale lots. Staples for fastening, 10c. per pound.

1-inch Mesh Galv. After Weaving.		List Price	Retail Price
Inches wide.	Square feet.	Per Bale.	Per Pound.
20	12	\$4.95	\$3.75
20	18	7.12	5.35
20	24	9.08	6.85
20	36	12.38	9.30
20	48	16.50	12.40

U. S. AND AMERICAN FIELD FENCES

The manufacturers of these fences are constantly keeping abreast with the times. With their wonderful facilities they are able to offer the farmer more value in design than can be obtained elsewhere for the money. The styles shown here are carefully selected, based on our wide experience in these lines. Heavy wires and improved galvanizing methods all tend to make these fences more durable. With the exception of the close-mesh hog fences, we are listing the improved U. S. style of fence. The features of the U. S. Fence are full gauge, hard, tough, springy steel wire. The stay of the U. S. Fence is one continuous wire from top to bottom, and is locked to the strand wires with a simple lock or knot, which grips the strand tight and will not allow slipping. The tension curve of the U. S. Fence is placed within the lock or knot. It is a real curve, mechanically formed. It is designed especially for great elasticity to take care of contraction and expansion due to hot and cold weather.



The styles listed below are specially recommended for cattle and division fences.

Style Number	Height in Inches	12-INCH STAYS		Retail Prices per Rod
		Approx. Weight per Rod Pounds	List Price per Rod	
949	49	10	\$1.05	\$0.63
845	45	9	.95	.57
635	35	7	.73	.44

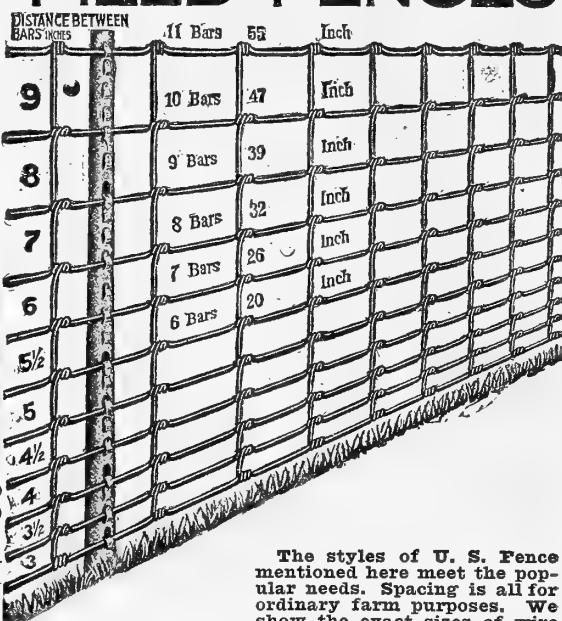
HEAVIER AND LIGHTER WEIGHT FENCES.

We can furnish any of the above fences made of all No. 9 wire where an extra heavy fence is desired. Of course, this increases the price, but a great many practical people consider it the most economical fence in the long run. In regard to the lighter fences, will state that we find we sometimes are put in competition with manufacturers who seek for trade on a basis of price alone, who make fencing out of wire much lighter than our standard specifications. To compete with such manufacturers we are prepared to furnish U. S. fence lighter than the standard fences mentioned above, but we do not recommend the lighter weight. Information and prices in regard to heavier and lighter fences will be cheerfully given on application.

AMERICAN CLOSE-MESH HOG FENCE.

Where a very close fence is wanted for hogs, we recommend this style. It is made with No. 10 top and bottom wires, No. 12 intermediate wires and No. 13 stay wires. It also makes an excellent barnyard fence, as the spacing of the lower wires is close enough to turn small stock and poultry, with the exception of the smallest chickens.

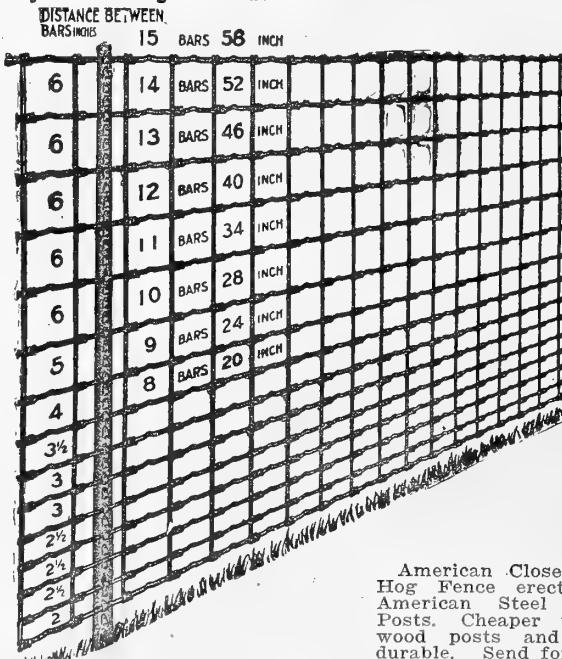
Design No.	Height in Inches	12-INCH STAYS		6-INCH STAYS		Retail Prices per Rod
		Approx. Weight per Rod Pounds	List Prices per Rod	Approx. Weight per Rod Pounds	List Prices per Rod	
1346	46	9.3	\$1.07	\$0.65	11.6	\$1.37
1240	40	8.6	.98	.59	10.6	1.25
1134	34	7.8	.90	.54	9.6	1.13
1028	28	7.1	.82	.50	8.6	1.01
						.61



The styles of U. S. Fence mentioned here meet the popular needs. Spacing is all for ordinary farm purposes. We show the exact sizes of wire used. No. 9 Top, No. 10 Bottom and No. 11 Stays and Intermediate. Furnished in 10- and 20-rod rolls.

Style No.	Height in Inches	12-INCH STAYS		6-INCH STAYS		Retail Prices per Rod
		Approx. Weight per Rod Pounds	List Prices per Rod	Approx. Weight per Rod Pounds	List Prices per Rod	
1155	55	11.8	\$1.25	\$0.75	15.9	\$1.77
1047	47	10.6	1.11	.67	14.1	1.56
939	39	9.4	.99	.60	12.4	1.38
832	32	8.3	.86	.52	10.8	1.19
726	26	7.2	.75	.45	9.3	1.02
						.62

While we hope to be able to maintain all through the season our published prices on galvanized wire fencing, at the same time the unsettled condition of the galvanized wire market makes it advisable for us to state here the prices are subject to change without notice.



American Close-Mesh Hog Fence erected on American Steel Fence Posts. Cheaper than wood posts and more durable. Send for catalog.

U. S. POULTRY AND GARDEN FENCE

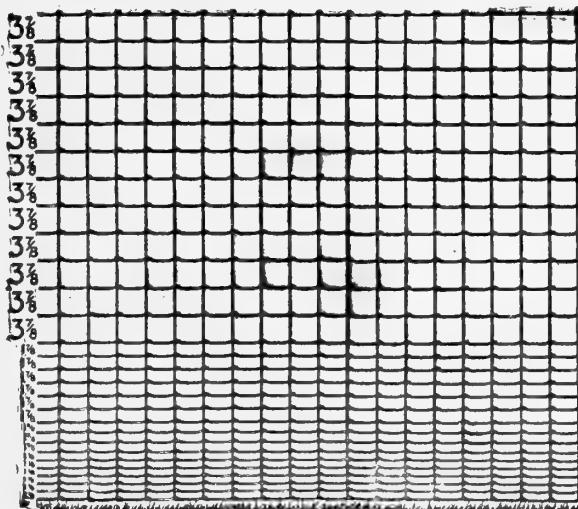
The illustration at the right shows the U. S. Poultry and Garden Fence, and we also show below the illustration size of wires used in its construction. The U. S. Poultry Fence is built of the same grade of wire as is used in the U. S. Field Fence, but of lighter gauge and the same excellent wrap is used. It is an ideal fence against poultry and small animals. The spacing is graduated from $1\frac{1}{2}$ inches at the bottom to 5 inches at the top, as shown by the illustration and the distance between the stays or uprights is 6 inches. We carry this fence in stock in the styles mentioned below. It is very extensively used as a protection for poultry yards, gardens and orchards. It meets the requirements; therefore it is a great favorite. Furnished regularly in rolls containing 10 rods or 165 lineal feet.

Style No.	Distance Between Stays	Height Inches	No. Of Boxes	Approx. Weight per Rod	List Price per Rod	Retail Price per Rod
2158	6	58	21	12.5	\$1.49	\$0.90
2053	6	53	20	11.8	1.41	.85
1948	6	48	19	11.1	1.33	.80
1635	6	35	16	9.2	1.10	.67

On page 142 we show a line of lighter weight and very closely spaced poultry fences. Don't worry about your fence posts. Buy the American steel posts shown on page 143.

BANNER POULTRY FENCE

KING OF STAPLE FENCES.



Barb Wire, Ribbon Wire, Twisted Two-Strand Wire, Plain Galvanized and Annealed Wire, Panel Wire.

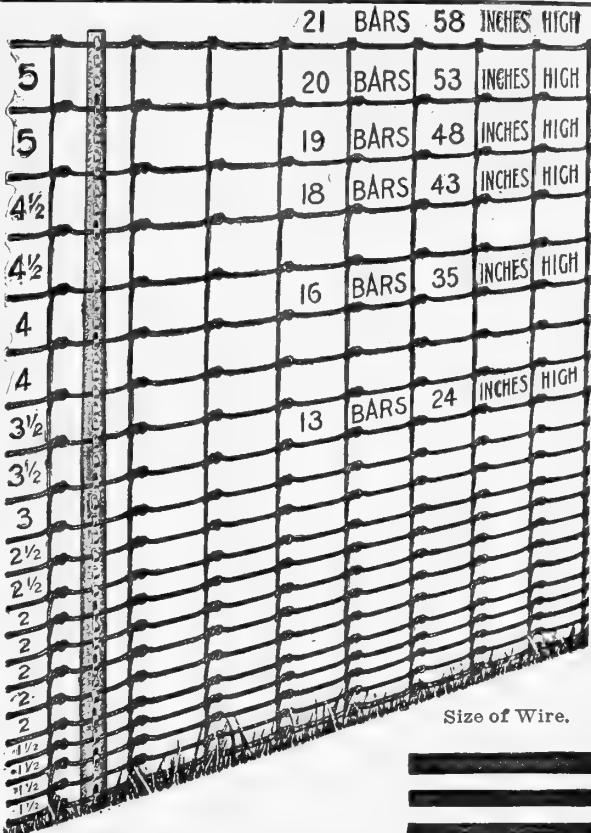
Prices on Application.

THE "NEVERSLIP" STRETCHER



The **NeverSlip Stretcher** has no teeth to cut or injure wire. Simple and strong in construction. Has hickory handle and malleable jaw. One man operates it, and both hands are left free to drive staple. Price without staple puller, \$1.00; with staple puller, \$1.25.

See page 143 for American Galvanized Fence Posts.



Size of Wire.

Banner Fence meets the demand for a closely woven fence heavier than the light poultry nettings. The spacing between the six line wires at bottom of fence is only $1\frac{1}{4}$ inches and gradually increased to $3\frac{1}{2}$ inches at top, so the essential feature of a satisfactory poultry fence—closeness of mesh—is well taken care of in this fencing. The upright wires or stays run continuously across the fence and lock firmly around the intersecting line wires in a loop knot, forming a smooth, solid joint without any sharp, rough edges. Top and bottom wires No. 15; all other wires No. 17 gauge, hard steel, thoroughly galvanized. While designed especially to meet the urgent and growing demand for a thoroughly good poultry fence, the close mesh of the fabric, together with the wide range of heights, makes **Banner Fence** particularly desirable for enclosing not only Poultry and Rabbit yards, but for all other places where it is desirable to exclude the smaller and lighter destructive animals.

Style.	Height.	No. of Bars.	Price per 10-rod Roll.
1624	24 inches	16	List, \$7.10 Our Price, \$4.25
1936	36 inches	19	List, \$8.80 Our Price, \$5.25
2248	48 inches	22	List, \$10.50 Our Price, \$6.30
2560	60 inches	25	List, \$12.30 Our Price, \$7.40
2872	72 inches	28	List, \$14.00 Our Price, \$8.40

THE LOTT STRETCHER

This stretcher is operated by a long lever, and can be used singly, pulling from centre of clamp, or in pairs pulling from top and bottom. All stretching chains are 8 feet in length. We do not furnish levers.

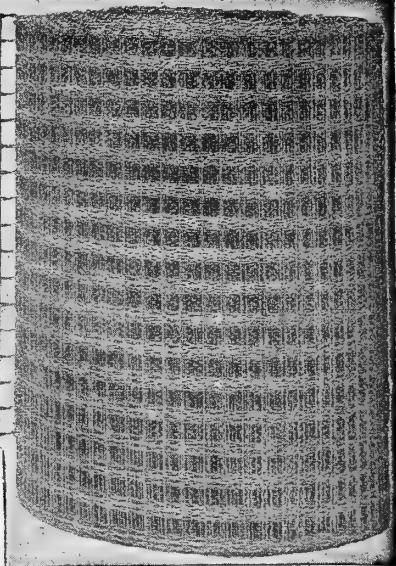
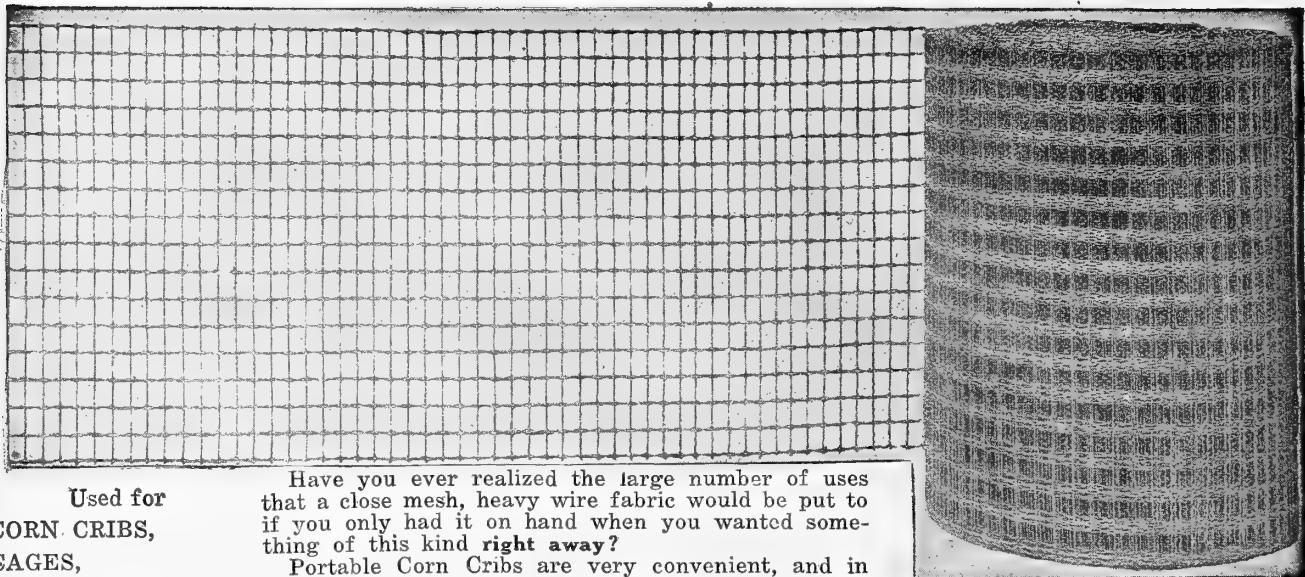
List Price, \$7.00; Our Special Price, \$6.25.
Fig. 2—Pittsburgh Single Wire Stretcher. **List Price, \$1.25.**
Retail, \$1.15.
Fig. 3—Pittsburgh Fence Tool. **List Price, \$1.00; Retail, \$1.00.**
Fig. 4—Splicer, 15c. each.

WIRE STRETCHER No. 1



Price \$1.50

PAGE UTILITY FABRIC



Used for
CORN CRIBS,
GAGES,
CHICKEN PENS,
FRUIT BINS,
ROOT BINS,
STORE ROOM PARTITIONS,
TENNIS COURTS,
TREE GUARDS,
WINDOW GUARDS,
SCREENS FOR BALL PARKS,
and an unlimited number of other places where a close mesh and extra strong fabric is desired.

Have you ever realized the large number of uses that a close mesh, heavy wire fabric would be put to if you only had it on hand when you wanted something of this kind **right away?**

Portable Corn Cribs are very convenient, and in some sections are a necessity. No fabric ever made equals our Utility for this purpose. It goes up like a board and is so well made that it can be used over and over again, year after year.

As a suggestion for round portable cribs, we give the following dimensions:

Fifty feet 48-in. Utility Fabric makes a crib 15 feet in diameter. Capacity 400 bushels.

For permanent cribs this fabric insures the best possible ventilation, saves time and expense in placing on frame-work, costs less than the old methods and will last longer.

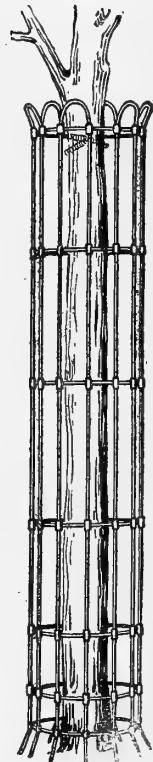
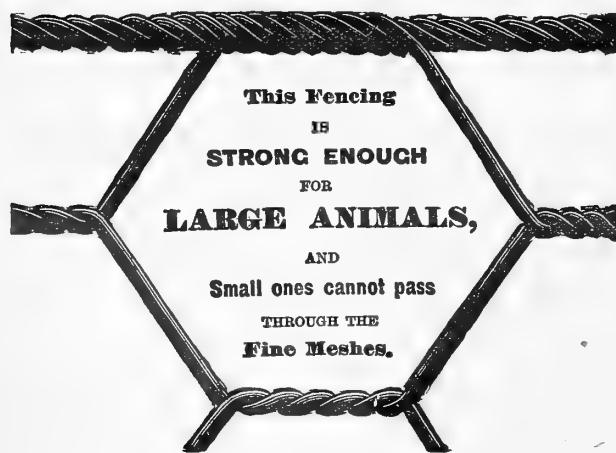
Note specifications and price above.

SPECIFICATIONS
Mesh.— $1\frac{1}{2} \times 2\frac{1}{4}$ in.
Wires.—No. 12½ longitudinals.
—No. 11 crimped transverse.
Rolls.—Standard, 200 lineal feet.
Width.—Standard, 48 inches.
Special widths will be made from 3 feet to 4 feet on orders of sufficient size to pay for loom changes.
PRICE 6 cents per sq. ft.

CYCLONE TREE GUARDS

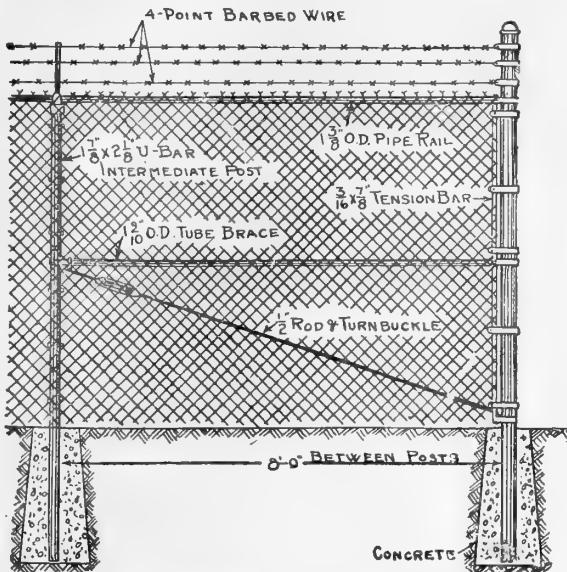
Made 6 feet high of heavy galvanized wire, in 9, 12 and 15-inch diameters. Ready for setting up by clasping the hooked ends. Furnished with spiral spring, which attaches to tree and prevents rubbing or bruising of the bark. Protects without shading or otherwise injuring the tree.

Height, Inches.	Diameter, Inches.	Our Price, Each.
72	8	\$1.50
72	10	1.75
72	12	2.00

**“Cottage” Lawn and Garden Fence**

This fence is also used extensively by our leading parks and athletic associations for baseball and tennis backstops. Made of heavy steel wire of extra high quality and of the size shown by the illustration. Size of mesh is also shown by the illustration. The three-strand rope selvages contribute much to the strength of the fabric and give it a finished appearance. After being woven the fencing is given a heavy coating of pure zinc by special process to make it rust-proof for many years. This fence meets all the requirements of a perfect fence, being strong enough to turn large animals, close enough to turn most poultry, and is practically non-climbable. It is neat and durable. Put up in rolls of 165 linear feet.

Height, inches.	List Price, per rod.	Our Price, Per rod.
24	\$2.00	\$1.20
36	3.00	1.80
48	4.00	2.40
60	5.00	3.00
72	6.00	3.60



CHAIN LINK FACTORY FENCE

We are offering an improved Factory Fence with chain link woven wire fabric. This type of fence has become very popular where an effective protective fence is desired. The usual fabric is 2-inch mesh, No. 9 gauge wire which can be furnished with either plain barbed top, or with the barb finish and three extra strands of four-point barbed wire above, as shown in illustration. The end and corner posts are 2 1/2 inches, line posts 2 3/8 inches and gate posts 4 inches outside diameter. The wire used in fabric is a special basic steel galvanized wire and the fabric is attached to the post by an improved method which does not necessitate drilling posts. The bands are all wrought iron, no castings used. The bracing for end and corner posts is of superior character designed on scientific lines. The result is an extra good fence, and we will be pleased to furnish blue prints and photographs showing the detail of this fence construction and submit special estimate on any factory fencing job desired.

GALVANIZED STEEL FENCE POSTS

CHEAPER THAN WOOD, AND MORE DURABLE—GALVANIZED INSIDE AND OUT.

These posts are neat, strong, durable and easy to erect. They will give you much more and better service than can be expected of wood posts because all being alike in size and quality of material, you get benefit of every post in the fence from year to year, while wood posts rot and decay. The line posts are strong enough to hold up any wire fencing, and furnish all necessary resistance. The end and corner posts are so strong that they will maintain any wire fence made. They are made of high quality steel, heavily coated with zinc, inside and out. They are adapted to all conditions, and should be used wherever a good wire fence is desired, no matter how heavy the wire. To prove the durability of these posts, we point to the fact that they have been in service since 1898 in every section of the United States, and reliable reports indicate that the oldest posts are today apparently as good as when set.

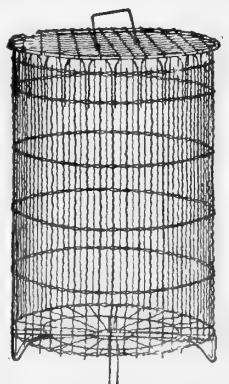
BURNING THE FENCE LINE—It is simply impossible to clean up farms while the fence lines are growing in, a crop of weeds every year, distributing their seeds in all directions and forming a sure and safe haven and breeding place for all sorts of insect pests. Burning the fence line is the logical solution, and if you use American Steel Fence Posts you can burn the fence line at your pleasure.

PRICE LIST SUBJECT TO CHANGE WITHOUT NOTICE.

GAUGE AND DESIGN.

	Length in Feet.	Approximate Weight in Lbs.	Special Prices, Per Post.
No. 16 Line Post	5	7.4	\$0.53
No. 16 Line Post	6 1/2	9.3	.60
No. 16 Line Post	7	10.	.68
No. 16 Line Post	7 1/2	10.7	.75
No. 16 Line Post	8	11.4	.83
No. 16 Line Post	9	12.8	.97
No. 10 End Post	7	51.	3.65
No. 10 End Post	8	59.	4.10
No. 10 End Post	9	67.	4.58
No. 10 End Post	10	119.	9.12
No. 10 End Post	11	122.	9.30
No. 10 Corner Post	7	75.	5.42
No. 10 Corner Post	8	86.	5.83
No. 10 Corner Post	9	97.	6.71
No. 10 Corner Post	10	195.	14.75
No. 10 Corner Post	11	197.	14.88
No. 10 Hitching Post	6 1/2	27.	2.50

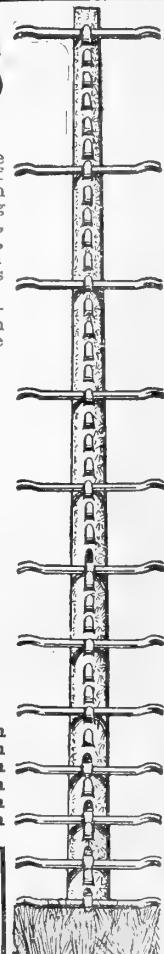
Ball Tops for Line Posts.....	.25c. each
Ball Tops for End and Corner Posts.....	.45c. each
Driving Caps for Line Posts.....	.45c. each
Upper Collar for Hanging Gate on End Post.....	.75c. each
Lower Collar for Hanging Gate on End Post.....	.75c. each
Pig Ear Latch.....	.75c. each



Cyclone Consumers

The best way to dispose of your waste paper and rubbish is to burn it in a **CYCLONE CONSUMER**. Avoids danger and helps to keep the yard and lawn clean and free from litter. Being made of heavy steel wire, with removable cover, it serves as a strong and neat waste-basket.

No. 1—20 in. diameter, 30 in. high.	Retail.....	\$4.00
No. 2—17 in. diameter, 25 in. high.	Retail.....	3.00
No. 3—14 in. diameter, 21 in. high.	Retail.....	2.75
No. 4—12 in. diameter, 18 in. high.	Retail.....	2.40

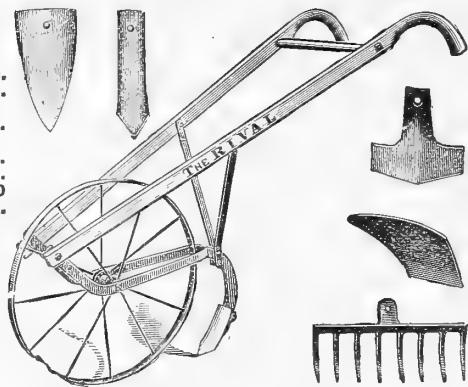


BALTIMORE "RIVAL" GARDEN PLOW COMPLETE

PRICE,
\$4.50

Extra Mould, 50c.
" Sweep, 45c.
" Large
Blade, 40c.
" Bull
Tongue, 30c.
" Rake, 50c.
" Wheel, \$1.50
" Weeder, 45c.

Handles, per
pair, \$1.25
Handle
Braces, per
pair, .50c.
Main Frame,
each, \$2.25



No. 1 GRITCO GARDEN PLOW

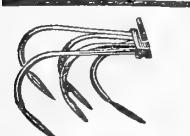
Packed weight, 28 lbs.
Height of wheel, 24 ins.

Is constructed
entirely of steel,
except cross handle
bar, and is
equipped with
shovel, calf-tongue,
weeder, cultivator
and mould-board.

Price, \$4.75.

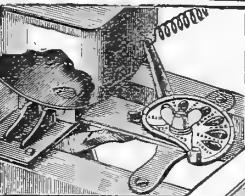
No. 2 is similar
to No. 1 above, ex-
cept handles are
wood, curved plow-
handle style.

Price, \$4.75.

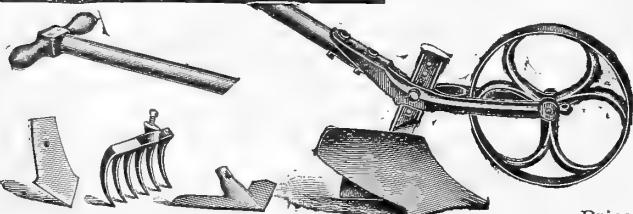
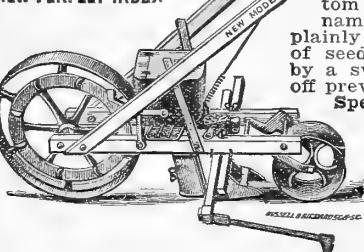
FIVE-TOOTH WEEDEER
ATTACHMENT.

Can be attached to any
of the Garden Plows.

Price, \$1.00 each.



NEW PERFECT INDEX



No. 10—Wheel Plow only.....\$4.50
No. 112—Same with all attachments shown.....5.00

New Model
Seed Drill

The Seeder Adjustment in the New Model is accom-
plished by use of a
slide with a pear-shaped
opening passing under the bot-
tom of seed reservoir. The
names of principal seeds are
plainly shown on index. The flow
of seed can be instantly stopped
by a swinging cut-off. This cut-
off prevents all loss of seed. Our
Special Price, \$15.50.

IRON AGE COMBINED
DOUBLE WHEEL HOE
HILL AND DRILL
SEEDER No. 306

In the No. 306 Hill and Drill Seeder is combined a drill seeder with hill dropping device, a double wheel hoe and a single wheel hoe. Will drop in hills at 4, 6, 8, 12 or 24 inches apart. Price, without Rakes, \$22.00.

New Universal
Wheel Plow

Packed weight, 19 lbs.

+ New Universal +



No. 116, Price,
\$6.50.
No. 8, Price,
\$6.00.

Attachments
on both are:
Landscape Plow,
Sweep Rake,
Double Tongued
Cultivator.

GARDEN PLOW
AND ATTACHMENTS.

No. 116—With wheel front and
rear gives perfect steadiness
and regulates exact depth.
No. 8—Same as No. 116, but
without rear wheel.

Packed weight, 40 lbs.



AXLE GREASE AND OILS



POLARINE OIL

A highly efficient light medium-bodied oil for the protective lubrication of automobile and motor-boat engines. A year-round lubricant—has a near-zero cold test, and maintains its lubricating efficiency in summer heat.

1-gallon cans	\$1.15
5-gallon cans	4.50
50-gallon barrels .....	.65

POLARINE OIL HEAVY

A medium-bodied oil for lubricating automobile engines that have badly-worn pistons; heavy-duty truck engines that have pressure oiling systems; sleeve-valve engines; motorcycle engines, and certain types of tractor engines.

1-gallon cans	\$1.15
5-gallon cans	4.50
50-gallon barrels .....	.65

POLARINE OIL EXTRA HEAVY

A heavy-bodied oil for lubricating automobile engines that have badly-worn pistons; heavy-duty truck engines that have pressure oiling systems; sleeve-valve engines; motorcycle engines, and certain types of tractor engines.

1-gallon cans	\$1.25
5-gallon cans	5.25
50-gallon barrels .....	.80

MICA AXLE GREASE



This is the highest quality of Axle Grease, and contains ground mica which forms a coating on the axle and makes a perfectly smooth surface. After this surface is formed you need use only half as much Mica as of any other axle grease.

Tin Box	\$0.15
3-lb. Pail .....	.45
15-lb. Pail	1.80
25-lb. Pail	2.75

G. & T. CO'S PERFECTION SEPARATOR OIL

This oil is put up expressly for the use of separators, and we recommend it to users of all hand machines, it being a light oil and having a very low cold test.

1-quart can	\$0.40
1/2-gallon can .....	.65
1-gallon can	1.00
5-gallon can	4.00

CAPITOL STEAM CYLINDER OIL 1-gallon cans	\$1.40
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POLARINE TRANSMISSION LUBRICANT "B"

A semi-fluid lubricant for transmission and differentials that are not tight enough to permit the use of an oil.

5-lb. cans	\$1.10
10-lb. cans	2.92
25-lb. cans	4.15
50-lb. cans	7.50

HARVESTER OIL

This oil is put up expressly for use on farm implements, Mowers and Binders and all tools on the farm should not be neglected, and care should be used to select an oil especially adapted to the needs of such machines. Many machines have been ruined by using oils that were too heavy or too light.

We strongly recommend the use of this oil.

1-gallon cans	\$1.00
5-gallon cans	4.50

EUREKA HARNESS OIL



Eureka Harness Oil is especially manufactured for oiling, blacking and preserving all kinds of leather, especially harness, automobile and carriage tops, etc.

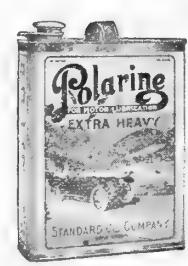
All harness needs a preservative. To neglect it means that sooner or later it will crack and break.

1-gal. cans	\$1.25
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THRESHER HARD-OIL

Thresher Hard Oil is a high-grade grease, slow to melt; for use in grease cups and grease boxes where a fluid oil cannot be used. It is manufactured expressly to meet the requirements of the agricultural trade.

3-pound packages	\$0.65
5-pound packages .....	.95



POLARINE TRANSMISSION OIL "A"

A heavy-bodied oil for lubricating transmissions, worm gears and differentials, ball and roller bearings of all descriptions. Its lubricating and enduring qualities for these purposes are exceptional. It should be used whenever the cases are tight enough to carry heavy oil without leaking.

1-gallon cans	\$1.10
5-gallon cans	4.15

POLARINE CUP GREASE

An efficient, long-lasting semi-solid lubricant for grease cups and universal joints, ball and roller bearings.

1-lb. cans	\$0.30
5-lb. cans	1.25
10-lb. cans	2.00
25-lb. cans	4.25

ALBANY GREASE or HARD-OIL

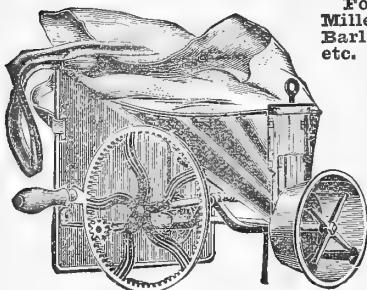


Every grease cup, axle cap and ball and roller bearing on your car should be filled with Albany Grease regularly. If you want a finely running car, with no danger of bearings burning out, always use Albany Grease. In the Spring, Fall and Winter use

No. 0 or No. 1. In the Summer, use No. 3 or No. X to secure best results. Albany Grease is packed in 5-10 pound cans.	\$1.50
5-lb. pkgs.	3.00

10-lb. pkgs.	3.00
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Cahoon's Broadcast Seed Sower



For sowing Clover, Timothy, Millet, Oats, Wheat, Hemp, Barley, Rye, Rice, Buckwheat, etc. Standard Seeder of the World—A Model for Accuracy and Durability—Malleable Iron Frame—Steel Hopper and Gate—Brass Discharge.

The breadth of the cast will be according to the weight of the seed. Wheat and Rye, 30 to 36 feet. Oats, 21 to 25 feet. Barley, 27 to 33 feet. Clover, Millet, Hungarian Seed, 20 to 24 feet. Hemp, 27 to 30 feet. Timothy, 15 to 18 feet.

OUR SPECIAL PRICE, \$4.50. Parcel Post Weight, 8 lbs.

The Original Improved Cyclone



THE SOWER THAT SCATTERS EVENLY

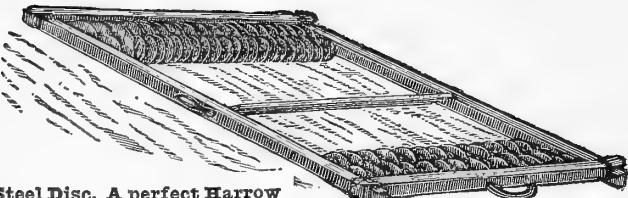
Although this machine has been much improved and simplified in recent years, yet the same general principles which characterized it when sold from \$10.00 to \$12.00 each are still retained. It differs materially and very advantageously from all other Sowers in having a slope feedboard with an oblong hopper which terminates in a metal edge, on which edge oscillates a feed plate which does not allow the seed to become clogged, but makes a positive force feed

and insures a uniform flow and even distribution of seed. Any one desiring a convenient, practical and an all-round first-class grain and grass seeder, a good, large sower that will meet the most exacting demands, we cannot recommend the CYCLONE too highly.

PRICE, \$2.00. Parcel Post Weight, 6 lbs.

GRASS SEEDS AND FORAGE PLANTS. See Pages 44 to 48.

Meeker Smoothing Disc Harrow



Steel Disc. A perfect Harrow and Land Roller Combined.

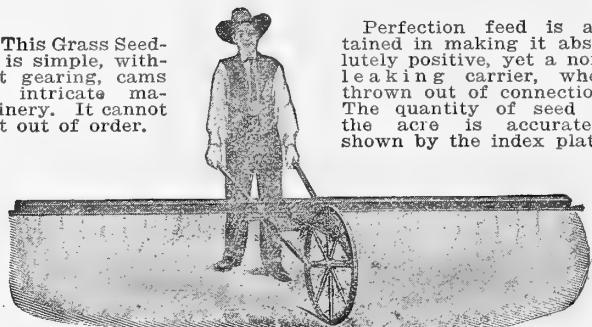
The frame measures 6 feet 8 inches by 6 feet, and has four sets of rollers, having 58 discs, 8 inches diameter on them. The discs grind all the lumps so fine that the seed must come up, leveling and leaving the land fine and smooth, and doing its work far better than the rake. **Price, \$38.00.** Special Discount for Cash.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

THOMPSON'S CLOVER AND GRASS SEEDER

Sows 14 to 16 Feet Wide, Any Amount Desired Per Acre. Will Sow 20 to 25 Acres Per Day.

This Grass Seeder is simple, without gearing, cams or intricate machinery. It cannot get out of order.



Perfection feed is attained in making it absolutely positive, yet a non-leaking carrier, when thrown out of connection. The quantity of seed to the acre is accurately shown by the index plate.

It is strong, yet weighs but 40 pounds.

No. 1—Complete Clover and Grass Seeder, the most popular style. 14-foot, \$10.75. 16-foot, \$11.25.

No. 5—Complete Seeder, with Double Hopper, sows Red Top, Orchard Grass, Blue Grass, Lawn Grass, as well as Clover. 14-foot, \$13.25.

MANILA ROPE FEEDER.

GRITCO No. 3 LAWNGRASS SEEDER.

Made especially for handling Lawn Grass Mixtures. These mixtures are generally composed of different kind of grasses, and the regular seeder will not handle them.

No. 9 \$14.50

THOMPSON'S ROYAL CLOVER AND GRASS SEEDER

These Seeders are similar to the Thompson above, except they have Chain Feed.

No. 11—14 ft., single hopper.....	\$10.75
No. 11—16 ft., single hopper.....	11.25
No. 12—14 ft., double hopper.....	13.25

LIGHTNING SEED SOWER

Cheap, durable, weighs only 12 oz. Simple; no re-pairs.



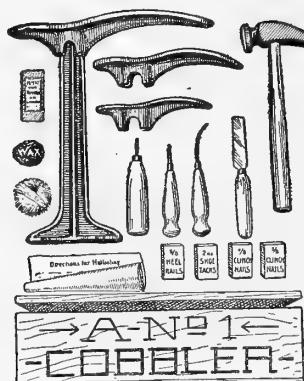
Will Sow 60 Acres per Day of Clover, Timothy, Millet, Alfalfa, Flax, etc.



Will spread seed evenly from 30 to 40 feet. Method of sowing is by swinging tube in horizontal position from right to left which closely resembles the old method by hand. Gives control over seed on a circle of 8 feet before it leaves the tube and the wind has no chance to blow seed into bunches before it strikes the ground.

PRICE, \$1.00.
Parcel Post Wt., 1 lb.

THE A NO. 1 COBBLER'S OUTFIT



This Cobbler's Outfit should be in every home. Do your own shoe repairing. It is expensive to have a cobbler repair them. Each set includes the following: 1 Stand for Lasts, 1 Extra Large Last, 1 Medium Last, 1 Small Last, 1 Shoe Knife, 1 Hammer Head, 1 Hammer Handle, 1 Sewing Awl, 1 Sewing Awl Handle, 1 Harness Awl, 1 Harness Awl Handle, 1 Peg Awl, 1 Peg Awl Handle, 1 Pkg. 4-8 Clinch Nails, 1 Pkg. 2 oz. Shoe Tacks, 1 Pkg. 5-8 Heel Nails, 1 Pkg. (6) Shoe Needles, 1 Ball Shoe Wax, 1 Ball Shoe Thread, 1 Copy Directions.

Price, per set.....\$1.00

Parcel Post Weight, 7 lbs.



**PRICES
GENUINE
FARMERS'
FRIEND
PLOW.**

No. 1½	\$6.25
No. 5	6.25
No. 7 R.	7.75
No. 7 L.	8.00
No. 7½ R.	8.00
No. 8 R. and L., with clevis	9.00
No. 8 R. and L., with rod	10.25
No. 9 R. and L., with clevis	9.25
No. 1 Hillside	7.50
No. 2 Hillside	8.75
No. 3 Hillside	9.10
Plain Points, Lands and Moulds, per pound.....	.09
Polished Points, Lands and Moulds, per pound.....	.10

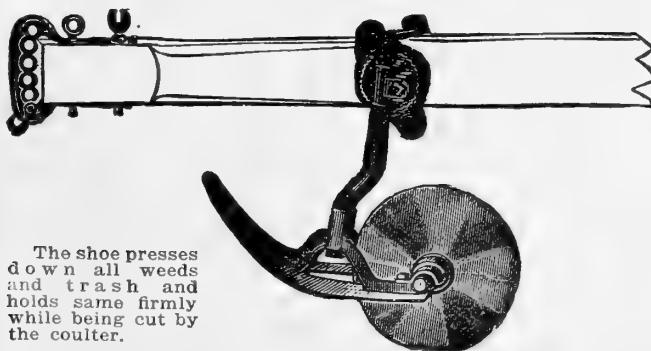
"GIRL" CHAMPION PLOW

No. "Girl"	\$6.60
No. A	7.00
Nos. AA and 2.....	7.25
Plain Castings, per pound.....	.09
Polished Castings, per pound.....	.10

"BOY" DIXIE PLOW

"Boy" Dixie	\$5.35
No. X	5.65
No. I	6.00
No. II	7.60
No. 2	9.10
Plain Castings, per pound.....	.09
Polished Castings, per pound.....	.10

"MOON" ROLLING COULTER



The shoe presses down all weeds and trash and holds same firmly while being cut by the coulter.

No. 1—8-inch disk.....	\$5.20
No. 2—10-inch disk.....	6.00
No. 3—12-inch disk.....	7.00

WHITE'S CLIPPER PLOW

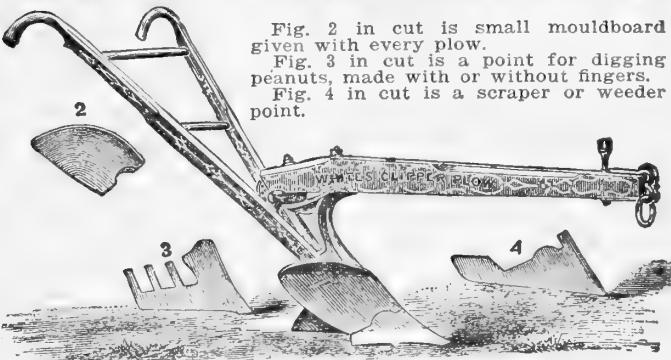


Fig. 2 in cut is small mouldboard given with every plow.

Fig. 3 in cut is a point for digging peanuts, made with or without fingers.

Fig. 4 in cut is a scraper or weeder point.

Prices Clipper Plow and Extras, Polished and Blue

No. 1 and 2, Cast, One-Horse.....	\$7.20
No. 12, Cast, Two-Horse.....	13.00
Cast Point for Clipper Plow, per pound.....	.10

Old Dominion Grub Plow

TWO-HORSE .. \$13.75

THREE-HORSE 15.00

COULTERS ... 3.50

BOTTOMS 6.75



It is peculiarly adapted to newly cleared ground that is encumbered with growth of hazel or other bushes. All wearing parts are of best steel, and it is so strongly built that it will withstand the hardest usage. It is the favorite plow of its class. It is built in right hand only, and cuts about 7 inches.



Prices:

No. 0 \$10.25

No. 3 14.25

No. 3½—Same as No. 3, with iron side drift attachment .. \$17.85

Gauge Wheel \$2.20

Extras for above:

Steel Points, No. 0, \$1.40.

Nos. 3 & 3½ \$2.00

Weight, No. 0, 36 lbs.; No. 3, 52 lbs.

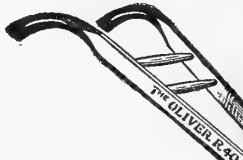
These Plows are made of best material throughout. The malleable iron uprights are unbreakable.

The Mole-shaped Duck-Bill Steel Points make the Plows very light draft. No. 0 is a One-Horse Plow, and the No. 3 is a Two-Horse Plow.

GENUINE OLIVER PLOWS AND GENUINE OLIVER REPAIRS

Don't forget to look for the **OLIVER TRADE MARK** on all **OLIVER** goods; none genuine without it.

In ordering Oliver Chilled Plows, state whether Wood or Steel Beam, and Right or Left Hand.



WOOD BEAM.

Prices.

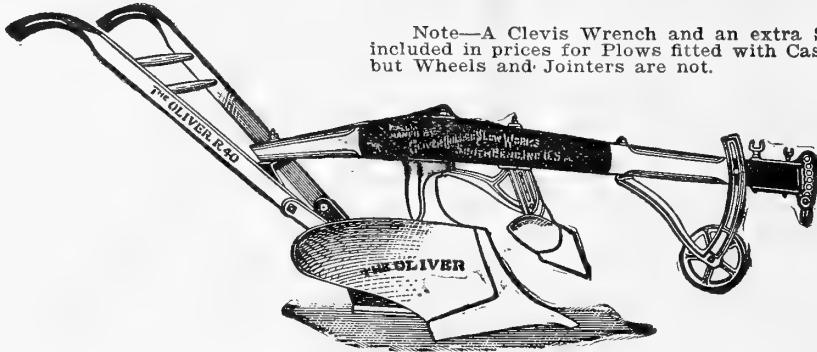
Nos. A-1 and A-2, right hand.....	\$ 9.50
No. B-N, right hand	11.00
No. 10-N, right and left hand.....	14.50
No. B-Vineyard, right hand	16.00
No. 13-N, right hand	18.00
No. 19-N, right and left hand.....	19.00
No. 20-N, right and left hand.....	20.00
No. E-1-N, right and left hand.....	22.00
Nos. 40-N and 40-X-N, right and left hand.....	22.00
No. 40-XX, left hand	23.00



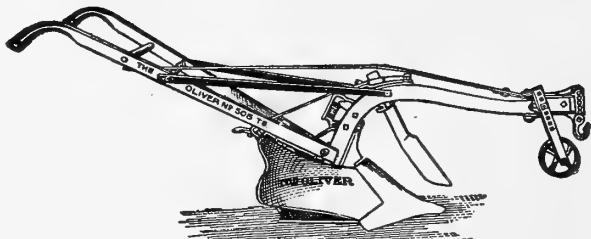
STEEL BEAM.

Prices.

Goober, R. H. only, capacity 4x7 in.....	\$10.00
Nos. A-1 and A-2, right hand.....	11.00
No. B-N, right hand	12.50
No. 10-N, right and left hand.....	16.00
No. 13-N, right and left hand.....	18.00
No. 19-N, right and left hand.....	19.00
No. 20-N, right and left hand.....	20.00
Nos. 40-N and 40-X-N, right and left hand.....	22.00
No. 83-N, right and left hand.....	20.00
No. 84-N, right and left hand.....	21.00
No. 88-N, right and left hand.....	22.50
No. 22, Chilled, Iron Beam, right and left hand.....	23.50
No. 3-X, Chilled, Iron Beam, right and left hand.....	17.50
No. 1, Road and Grading Plow, all steel, with Standing Coulter and Gauge Iron or Wheel, right hand only....	62.00
The Oliver Subsoiler, best of its kind, with Wheel.....	25.50



OLIVER HILLSIDE PLOWS

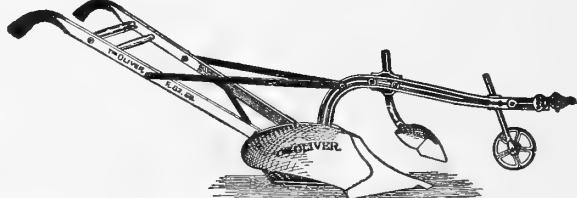


Prices.

HILLSIDE PLOWS:

No. 52, Steel Mouldboard, Chilled Share, Wood Beam, One-Horse..	\$19.50
No. 5½, Chilled Mouldboard, Chilled Share, Two-Horse.....	17.50
No. 57, Steel Mouldboard, Chilled Share, Wood Beam, Two-Horse..	24.50
No. 524, Iron Beam, Chilled Mouldboard, Chilled Share, Shifting Clevis, Two-Horse	21.50
No. 508, Chilled Mouldboard Chilled Share, Steel Beam, Shifting Clevis, Light, Two-Horse.....	24.50
No. 509, Chilled Mouldboard, Chilled Share, Steel Beam, Shifting Clevis, Heavy, Two-Horse.....	26.00

83 STEEL BEAM SERIES



The No. 83 Series is not so old as other members of the Oliver family, but their success has long since been assured, and they have become some of our most popular plows. There is no field in which they cannot be put to work with a feeling of confidence. The superior turning qualities of the mouldboard, the keen pointed, high share and the firm construction make them especially adaptable to sandy, gravelly or stony soils. They are capable of a clean, straight furrow, and are always at the will of the plowman.

The chilled landsides, which are straight, are of double flange style.

MOULDBOARDS.

No.	No.	No.
A-1 & A-2. \$2.35	83	\$5.25
B. & B. Vin. 3.25	84	5.75
10-0	5.75	5.75
13 & 13 Vin. 4.50	3 X	5.15
19.	4.75	9.8
20.	5.25	5.25
22.	5.75	5.75
40.	5.75	5.75
40 XX	6.25	14.0
E-0, E-1.	5.75	5.75

LANDSIDES.

No.	[No.]	No.
A	\$.75	E
B. & B. Vin. 1.10	83	1.50
10.	1.10	1.50
13 & 13 Vin. 1.50	84	1.50
19.	1.50	1.50
20.	1.50	1.50
22.	1.50	1.50
3 X	1.50	1.50
40 & 40 XX. 1.50	120	1.50

HANDLE BRACES.

No.	No.	No.
No. A	\$.35	
No. B-10-13-13 Vineyard, B.		
Vin. . . . .	.45	
All other Handle Braces. . . . .	.75	

WOOD BEAMS.

No.	No.	No.
No. A-B-B Vineyard & 10. \$2.50		
No. 40 XX.	3.50	
All other numbers, Wood. 2.75		
No. 22, Iron.	4.75	

STEEL BEAMS.

No.	No.	No.
No. Vineyard	\$3.75	
Nos. A, B, 10, 13 & Goober 4.25		
Nos. 83, 84.	4.25	
Nos. 19, 20 and 88.	4.75	
No. 40	5.25	

WOOD BEAM CLEVICES.

Marked "A," for One-Horse Plows, Wood Beam.	\$.35
Marked "B," for Two-Horse Plows, Wood Beam.	
Marked "D," for Three-Horse Plows. . . . .	.50
Shackles, Twisted . . . . .	.85
Wrenches . . . . .	.15
Guide Pins . . . . .	.05
Shackle Pins . . . . .	.05
Links, Two-Horse . . . . .	.05
Rings, One-Horse . . . . .	.05

IRON AND STEEL BEAM CLEVICES.

Marked "2," for B, 10 and 13 Plows	\$1.00
Marked "3," for 19 and 20 Plows	
Marked "4," for 40 Plows. 1.00	

HANGING COULTERS.

All Numbers, complete two-horse, except 7-L & 3-X. \$3.50	
Holders, same as for jointers 1.50	

ROLLING COULTERS.

11-in., for one-horse plows, complete	\$4.75
13-in., for two or three-horse plows, complete	
13-in., for two or three-horse plows, complete	5.25

PRICES FOR REPAIRS FOR ROLAND CHILLED PLOWS

Numbers.	No. on Slip Nose.	Mould-boards.	Landsides.	Standard.	Solid share.	Slip shares.	Slip nose.	Cutter.
E4 & E3	E	\$5.75	\$1.50	\$4.75	\$.90	\$1.10	\$.20	\$.50
	E	5.75	1.50	4.75	.90	1.10	.20	.50
23	D	5.50	1.50	4.75	.85	1.05	.20	.50
D3 & C3	C	5.50	1.50	4.75	.80	1.00	.20	.50
D4	C	5.25	1.50	4.25	.80	1.00	.20	.50
13	A	5.00	1.10	3.75	.60	.80	.20	.40
B3	X	3.25	1.10	2.75	.50	.70	.20	.40
A3	X	2.35	.75	2.25	.40	.60	.20	

CLEVISES.

Nos. A3, B3 and 13	\$.35
All other numbers, 2-horse. . . . .	.50
Three-horse . . . . .	.85

HANDLES.

Nos. A3, B3 and 13, complete, per set	\$1.75
All other numbers, complete, per set	2.00
Single Handles, each, all numbers. . . . .	.60
Rounds, per pair. . . . .	.10

WOODBEAM STANDARDS.

No.	No.	No.
A	\$2.25	40
B	2.75	40 XX
B. Vin.	3.75	3.75 E
10-0	5.75	10
13 & 13 Vin. 4.50	3 X	3.75
19.	4.75	119
20.	5.25	120
22.	5.75	120
40.	5.75	140
40 XX	6.25	140

STEEL BEAM STANDARDS.

No.	No.	No.
A	\$2.50	20
B	2.50	40
10.	4.00	83
13	4.00	84
19.	4.00	88

HANDLES.
Per Pair and Single.

All numbers, per pair, loose. \$1.20
All numbers, single, each. .60

Rounds, per pair. .10

L. S. Handle Plates. .15

In ordering handles, state whether for wood or steel beam plows.

Complete—Per Set.

No. A-B-10-0 \$1.50
Nos. 83, 84, 88 complete. .2.00
No. 13, complete . .1.75
No. B Vineyard 2.25
No. 98-99-119-120 and 140. .2.00
No. 19-20-E, 40 and 40 XX. .2.00
No. 22, with Rub Irons. .2.50

SHARES.

Numbers.	Sold Cutter Shares.	Sold Plain Shares.	Cutter Oliver Slip Nose Shares.	Plain Oliver Slip Nose Shares.	Chilled Reversible Wings.
A	\$.50	\$.40	\$.60	\$.20	\$.20
B . . . . .	.50	.50	.70	.20	.20
B. Vin. . . . .	.50	.70	.70	.20	.20
10-0 . . . . .	.60	.80	.80	.20	.20
19. . . . .	.75	.95	.90	.20	.20
20. . . . .	.80	1.00	1.00	.20	.20
22.	1.00	.90	1.10	.20	.20
3-X . . . . .	.90	1.10	1.10	.20	.20
40-XX	1.00	1.10	1.10	.20	.20
E . . . . .	.90	1.10	1.10	.20	.20
83 . . . . .	.85	1.00	1.00	.20	.20
84 . . . . .	.90	1.00	1.00	.20	.20
88 . . . . .	.90	1.00	1.00	.20	.20
98 . . . . .	.90	.80	1.00	.60	.40
99	1.00	.90	1.10	.60	.40
119	1.00	.90	1.00	.70	.50
120	1.00	.90	1.00	.70	.50
140	1.00	.90	1.00	.70	.50

JOINTERS.

Decidedly the most important of all plow attachments, and can be used on most of our plows. The plowman who once uses a jointer will never want to do without it.

No. D—Chilled, for one-horse plows. \$2.75

No. 2—For two and three-horse plows. 3.50

Jointer Points, chilled, all numbers.25

Jointer Mouldboards50

One-horse Jointer Holders1.25

Two-horse Jointer Holders1.50

One-horse Jointer Standards60

Two-horse Jointer Standards90

Note.—In ordering, say whether for wood or steel beam, right or left-hand plows.

COMBINATION PLOW REPAIRS.

Numbers.	Mould-board Lugs.	Handle Lugs.	Mould-board and Landside Braces.	Shins.	Levers.	Springs.	Landside Plates.
98	25c.	25c.	80c.	30c.	5c.	5c.	
99	25c.	25c.	90c.	30c.	5c.	5c.	
19	25c.	25c.	50c.	25c.	5c.	5c.	
20	25c.	25c.	50c.	25c.	30c.	5c.	
140	25c.	25c.	50c.	30c.	5c.	5c.	
X	25c.	25c.					

HILLSIDE PLOW REPAIRS.

Plow Nos.	Chilled Mould-board.	Steel Mouldboard.	Standards.	Landsides.	Chilled Shares.	Set Handles.	Wood Beams.	Wood Beam Clevises.	Wrenches.	Wheels.	Jointers.
52	\$4.75	\$6.00	\$1.00	\$1.00	\$2.00	\$2.50	\$3.50	\$20	\$1.35		
53 1/2	\$5.75	6.50	1.35	1.00	2.00	2.50	1.25	.25	1.75		
55	7.00	6.50	1.35	1.00	2.25	2.50	.60				
57	4.50	5.00	1.00	1.15	1.50						
58	4.75	8.25	5.25	1.35	1.00	2.25					
508	4.75	8.25	5.25	1.35	1.00	2.25					
509	5.25	8.25	5.25	1.35	1.10	2.25					
524	5.25	8.25	5.25	1.35	1.10	2.00					

BOLTS.

Straight standard, one-horse, complete. \$1.35

Brace, standard, two-horse, complete. 1.75

Standards, one-horse, straight.50

Standards, two-horse, all kinds.60

Wheels only, one-horse.50

Wheels only, two-horse.60

Hubs.25

Center pins or hub bolts.05

Note.—In ordering wheels, say if for right or left-hand wood or steel beam plows.

HANDLE BRACES.

No. A340 All other numbers.70

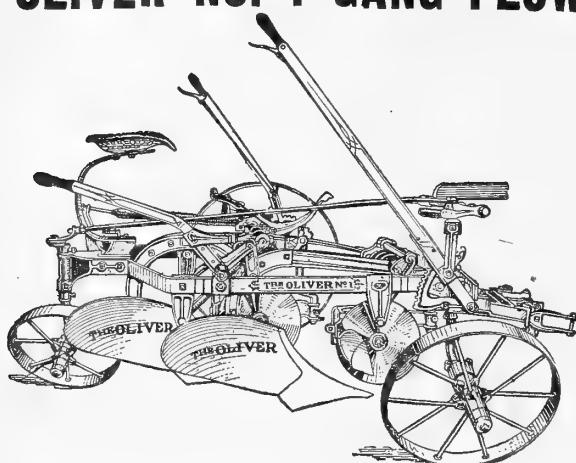
WRENCHES.

Wrenches20

JOINTERS.

Two and three

OLIVER NO. 1 GANG PLOW



The beams are landed at an angle to the furrow to provide a center draft. This construction distributes the strain evenly along both beams and entitles the plow to the merited and distinguishing name of "The Center Draft Gang Plow." It gives a natural draft and makes effective every ounce of mental in the beams.

The same good reasoning prevailed over other features of the plow. It was realized that constant passing of gritty soil over the plow bottom would necessarily wear, but to overcome this to a great degree the plow bottom has been prepared with shapes that offer a minimum amount of resistance. It plows a uniform depth in uneven ground.

Is raised or lowered with little or no exertion. Is adapted to any soil and every condition of plowing.

TURNS to the right or left while plow bottoms are in ground. Can be handled as easily as a wagon. Is light in draft and perfect in work. In opening land a square and level furrow is turned.

Wheels are large and the plow runs steadier in consequence. Is fitted with dust and sand-proof boxes and caps. Plows two to ten inches in depth as desired at will of operator.

No. 1—Gang Plow, Steel or Chilled Mouldboard. Chilled Shares, Combined Rolling Coulter and Jointer, Weed Hooks, Four-horse Evener and tongue. Our Special Price, \$125.00.

No. 1—Gang Plow, same as above, but with Jointers only. Our Special Price, \$120.00.

CHATTANOOGA SULKY PLOW

Nos. 45-46-95 and 96.

The plow is light and very attractive and is so easily handled that either an old man or a boy can operate it. The seat is low, which makes it very convenient to get off and on the plow without danger.

The plow is very short, which enables it to penetrate the ground very quickly when out of the ground. This is an excellent feature in rough land. The plow is so short and easily handled that satisfactory plowing can be done in small fields; in fact, any kind of plowing can be as satisfactorily done as with a walking plow.

Why walk and plow when one can ride and do more and better work without increasing the draft on the team? The extra weight of the operator is carried by the wheels and rolling landside. The rolling landside is fitted with scrapers for keeping it clean. It works with less friction than can possibly be accomplished with a drag landside. The extra weight of the operator is an advantage in hard ground.

The levers are always in convenient reach of the operator, and on right hand plows are all operated by the right hand, and on the left hand plows by the left hand. We recommend right hand plows on this account.

A balance spring is attached to the landside axle, which adds greatly to the comfort of the operator when going over uneven ground.

The wheels are so constructed as to use hard oil or grease and have removable boxes and dust proof caps.

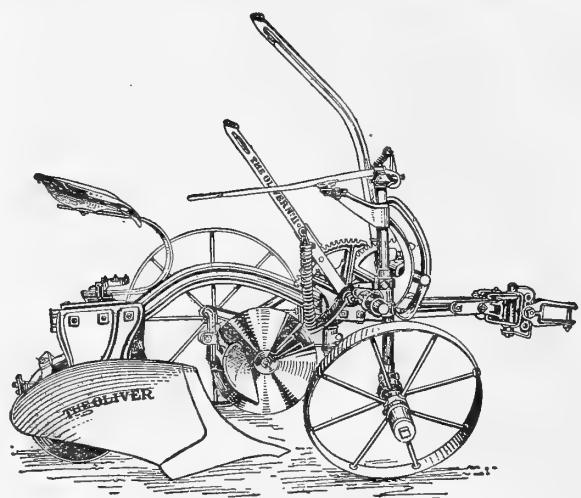
The front furrow wheel can be adjusted to suit any width of furrow.

The usual equipment, such as jointers, rolling coulters, or rolling coulter and jointer combined and weed hooks are furnished as desired.

With Chilled Bottom, 3-Horse Hitch and Weed Hook. No Tongue.

	List Price.	Special Price.
With Rolling Coulter and Jointer combined	\$80.00	\$75.00
With Rolling Coulter only	77.00	72.00

OLIVER SULKY PLOW No. 11

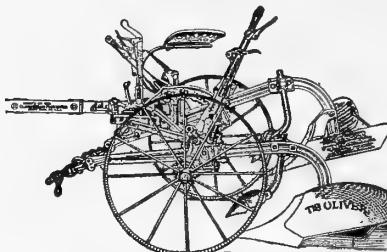


Light, durable and effective. Simple and novel device for turning. Plows the most difficult soils and does it well. Can be used with or without tongues. Depth easily regulated. Turns square corners without lifting out of the ground. Made in both right and left hand.

No. 11—Sulky Plow, Steel or Chilled Mouldboard, Chilled Share, Rolling Coulter and Jointer combined, Weed Hook, less Tongue and Neck Yoke. Our Special Price, \$75.00.

No. 11—Sulky Plow, same as above, but with Jointer only. Our Special Price, \$72.50.

Oliver Reversible Sulky Plow No. 23



This reversible sulky plow is more easy to manipulate than any other on the market and more convenient and safe for the operator in hillside work. By means of the power lift, operated by a foot trip when riding, or a hand latch when walking, this "horse lift," which is brought into play by simply pressing forward slightly on the foot trip, the operator's work is diminished by fully one-half.

Sulky with Chilled Shares, Jointers and 2- or 3-Horse Hitch. Our Special Price, \$100.00.



CHATTANOOGA CHILLED PLOWS

STEEL BEAM LOW FRONT

Cut represents two and three-horse plow.

Prices Chattanooga Plows and Extras

Nos.	Capacity.	Wt., lbs.	Price.	Plain Shares.	Sod Cutter Shares.	Cutter Shares.	Slips.	Landsides.	Mould-boards.	Steel Beams.	Wood Beams.	Handles with Braces, Set Standards.
45—2-Horse, Wood Beam.....	10x12	124	\$20.00	..	..	80	1.00	20	1.50	5.00	3.00	2.10
45—2-Horse, Steel Beam.....	10x12	131	20.00	..	..	80	1.00	20	1.50	5.00	3.00	2.10
46—3-Horse, Wood Beam.....	12x14	144	22.00	..	..	90	1.10	20	1.50	5.50	3.00	2.45
46—3-Horse, Steel Beam.....	12x14	165	22.00	..	..	90	1.10	20	1.50	5.50	6.00	2.75
62—1-Horse, Wood Beam.....	5x8	60	10.00	.35	..	..	.50	.15	.75	2.25	2.50	1.75
62—1-Horse, Steel Beam.....	5x9	70	11.00	.35	..	..	.50	.15	.75	2.25	4.00	2.25
72—1-Horse, Steel Beam.....	5x8	75	11.00	..	..	45	.60	.15	.75	2.50	4.00	2.25
63—Very Light, 2-Horse, Steel Beam.....	8x10	105	16.00	..	.60	.60	.80	.20	1.25	3.75	4.00	2.25
64—Light, 2-Horse, Steel Beam.....	9x11	123	18.00	..	.70	.70	.90	.20	1.50	4.50	5.00	2.75
65—Medium, 2-Horse, Steel Beam.....	10x12	134	20.00	..	.80	.80	1.00	.20	1.50	5.00	5.00	2.75
66—Heavy, 2-Horse, Steel Beam.....	12x14	165	22.00	..	.90	.90	1.10	.20	1.50	5.50	6.00	2.75

Rolling Coulters, complete, \$5.25; Wheels, complete, \$1.75; Jointers, complete, \$3.50; Bolts for Shares, Landsides, Moulds, 3c.; Rear Beam Bolts on 1-Horse Plows, 15c. All other Beam Bolts, 20c.



Prices Climax Plows

PONY.—Light, 1-horse, 7-in. cut, wood beam; very popular. Price, with extra steel point, weight, 37 lbs., **\$7.00**.

A. O.—1-horse, 8-in. cut, wood beam. Price, with extra steel point; weight, 41 lbs., **\$8.15**.

B. O.—1-horse or light 2-horse, 9-inch cut, wood beam. Designed for either stubble or light sod, doing both kinds of work in the most satisfactory manner; very light draft. Price, with extra steel point; weight, 43 lbs., **\$9.20**.

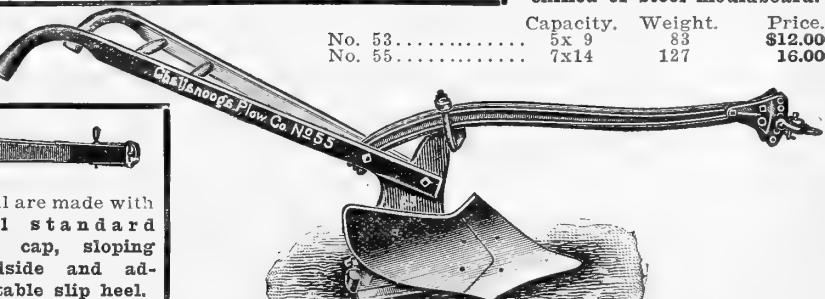
C. O.—2-horse, 10-in. cut, wood beam. Price, with extra steel point; weight, 63 lbs., **\$12.50**.

D. O.—2-horse, 11-inch cut, wood beam; it turns its furrow slice perfectly. Price, with extra steel point; weight, 66 lbs., **\$14.60**.

Prices of Extras.

	Points	Lands	Moulds
Pony	\$0.60	\$0.45	\$0.90
A. O. ....	.80	.50	1.10
B. O. ....	.94	.50	1.30
C. O.	1.15	.65	1.50
D. O.	1.50	.70	1.80
	Beams without Clevis	Handles per pair, less bolts	Wood Beam Clevis
Pony	\$2.00	\$1.80	\$0.40
A. O.	2.00	1.80	.40
B. O.	2.25	1.80	.60
C. O.	3.00	2.25	.80
D. O.	3.00	2.25	.80

All are made with steel standard and cap, sloping landside and adjustable slip heel.



Chattanooga One-Horse Plow

The one-horse plows as priced below are a little different from design shown in cut. The No. 72 is the factory's latest pattern.

PRICES:

No. 62—Wood Beam... \$10.00
No. 62—Steel Beam... 11.00
No. 72—Steel Beam... 11.00

Chattanooga Reversible Hillside Plows

Steel beam only, 2-horse, with chilled or steel mouldboard.

Capacity.	Weight.	Price.
5x 9	83	\$12.00
7x14	127	16.00

STEEL BEAM MIDDLE BURSTER

SHARES FOR MIDDLE BURSTER

Cuts.	Our Special Price.
8-inch	\$1.65
10-inch	1.85
12-inch	2.10
14-inch	2.30
16-inch	2.80



The Beam has a high throat, and wings are shaped especially for black, waxy lands. Wings and points are of high carbon steel. Points have reinforced nose. A strong, serviceable tool for two, four or six horses.

We can furnish them as follows:

Cuts— 8 inches; weight, 74 pounds.....	13.25
Cuts—10 inches; weight, 77 pounds.....	14.50
Cuts—12 inches; weight, 80 pounds.....	15.00
Cuts—14 inches; weight, 87 pounds.....	16.65
Cuts—16 inches; weight, 89 pounds.....	

Our Special Price.
\$13.25
14.50
15.00
16.65

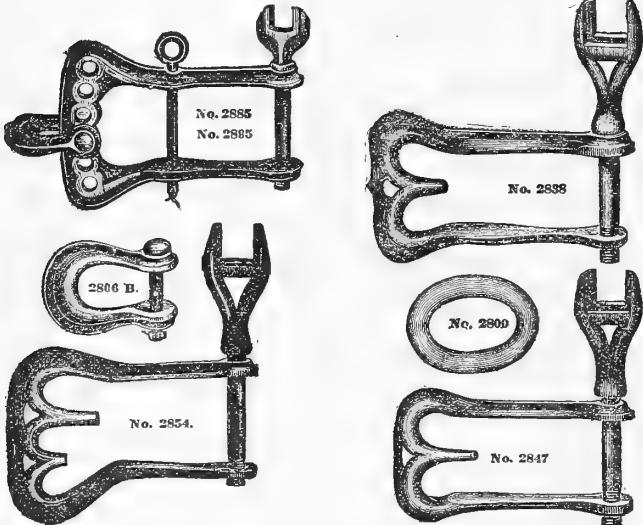
Rudders, each, List, \$1.10. Our Special Price, 75c.



PLOW HANDLES—Not Finished

$1\frac{1}{8} \times 2$	inches, 5 feet long, per pair	\$0.75
$1\frac{1}{4} \times 2$	inches, 5 feet long, per pair	1.00
$1\frac{1}{4} \times 2\frac{1}{4}$	inches, 6 feet long, per pair	
$1\frac{1}{2} \times 2\frac{3}{8}$	inches, 5 feet long, per pair	
$1\frac{1}{2} \times 2\frac{3}{8}$	inches, 5½ feet long, per pair	
$1\frac{1}{8} \times 2$	inches, Side Bend, per pair...	

MALLABLE CLEVISSES



No. 2885.—2½-in. beam; 2¾-in. from center of wrench to center of pin; 6¾-in. extreme length; 6 holes; shackle and pin. For use on No. 5 F. F. and similar cast plows. List price, doz., \$9.60. Retail price, each, 50c.

No. 2895.—2½-in. beam; 3¾-in. from center of wrench to center of pin; 7½-in. extreme length; 6 holes; shackle and pin. For use on No. 7 F. F. and similar cast plows. List price, doz., \$10.50. Retail price, each, 55c.

No. 2854.—2-in. beam; 5¾-in. extreme length; 3-in. from center of wrench to end of beam. Patent wrench. For use on Girl Champion and similar cast plows. List price, doz., \$4.50. Retail price, each, 30c.

No. 2838.—2-in. beam; 6½-in. extreme length; 3¾-in. from center of wrench to end of beam. Patent wrench. For use on Southern cast plows. List price, doz., \$4.50. Retail price, each, 30c.

No. 2847.—2-in. beam; 5¾-in. extreme length; 3-in. from center of wrench to end of beam. Patent wrench. For use on "Boy" Dixie and similar cast plows. List price, doz., \$4.50. Retail price, each, 30c.

No. 2855.—2-in. beam; 3¾-in. from center of wrench to center of pin; 6¾-in. extreme length. For use on Hampton Boy and Hampton No. 1. List price, doz., \$5.70. Retail price, each, 40c.

No. 2806 B.—End Clevis.—¾-in. inside measure; 3-in. extreme length. List price, doz., \$2.50. Retail price, each, 15c.

No. 2800—Plow Link.—3-in. long, 2½-in. wide. List price, doz., \$2.50. Retail price, each, 15c.

Extra for Steel Beam Syracuse Plows

Nos.	No. Horse.	Common shares.	Cutter shares.	Cast lands.	Chilled moulds.	Beams.	Standards.	Slip shares.	Slip points.
7	R. H. only	2	Horse.	\$.80	\$.95	\$1.40	\$5.25	\$6.50	\$6.50
8	" "	2	"	.85	1.00	1.35	5.75	6.50	6.50
15	" "	3	"	.90	1.05	1.60	6.25	7.50	7.50
21	L. H. only	2	or 3 H.	.90	1.05	1.50	5.75	6.50	6.50
35	" "	3	Horse.	.90	1.05	1.60	6.25	7.50	7.50

Jointers, complete, chilled, \$3.50. Wheels, complete, \$1.75. For Heavy Shares, add 15c. each.

Jointer Points for any of above Syracuse Plows, 25c. Syracuse Base Bolts, 6c.

Repairs for Wiard Plows

Nos.	Kind.	No. Horse.	Price.		
			Shares.	Lands.	Moulds.
62	R. H. only	1 Horse.	\$.50	\$.60	\$1.50
13	" "	1 "	.80	1.10	2.50
10	" "	1 "	.80	1.10	3.25
19	" "	2 "	.85	1.35	5.25
16	" "	2 "	.85	1.35	5.25
18	" "	2 "	.85	1.35	5.75
26	" "	2 or 3 Horse.	.85	1.35	5.75
26½	" "	2 Horse.	.85	1.35	5.50
27	L. H.	2 "	.85	1.35	5.50
28	" "	2 "	.85	1.35	5.75
16	Hillside	2 "	1.05	.....	5.25
126	" "	2 "	1.05	.....	4.50
130	" "	2 "	1.05	.....	4.50

Repairs for South Bend Plows

Nos.	Shares.	No. Horse.	Handle sets complete.		
			Shares.	Lands.	Moulds.
62	Solid	1 H. R. H. only	\$.35	\$.60	\$1.65
1	"	1 "	.45	1.25	2.40
2	"	2 Horse	.55	1.15	3.50
2½	"	2 "	.65	1.35	4.50
3	"	2 "	.70	1.50	5.25
4	"	2 "	.80	1.50	5.75
10	"	2 "	.85	1.50	5.75
15	Slip	2 "	.75	1.35	4.50
3	Slip	2 "	.80	1.50	5.25
4	"	2 "	.90	1.50	5.75
10	"	2 "	.95	1.50	5.75
15	"	2 "	1.00	1.50	5.75

Jointers, complete, \$3.50. Wheels, complete, \$1.75. Rolling Coulters, \$5.25. Handles, single, all numbers, 90c. each. Other extras not named here can be furnished; price on application. Standing Coulters, \$3.50. Slip Points, each, 20c.

Repairs for Syracuse Plows

Nos.	Wood Beam Chilled Plows.	Cutter shares.	Wood Beam Chilled Plows.		
			Shares.	Lands.	Moulds.
44	R. H. only	1 Horse	\$.40	\$.75	\$2.25
50	" "	1 "	.45	1.85	2.50
51	" "	1 "	.50	1.10	3.25
52	" "	1 "	.55	1.20	3.75
53	" "	1 or 2 H.	.60	1.25	4.50
54	" "	Light 2.	.85	.70	5.00
55	" "	Med. 2.	.90	.75	5.25
56	" "	Reg. 2.	.95	.80	5.50
57	" "	2 or 3 H.	1.00	.85	5.75
95	L. H.	2 Horse	.90	.75	5.25
96	" "	2 "	.95	.80	5.50
97	" "	2 or 3 H.	1.00	.90	5.75
501	" "	.....	.....	.90	5.75
502	" "	.....	.....	.90	5.75
503	" "	.....	.....	.90	5.75
601	R. H.	.....	.....	.90	5.75
602	" "	.....	.....	.85	5.50
603	" "	.....	.....	.80	5.25

Repairs for Syracuse Contractors' Plows

Nos.	For Contractors' Plows, see page 245	Steel shares.	For Contractors' Plows, see page 245		
			Moulds.	Beams.	Standards.
99	.....	.....	\$7.50	\$4.50	\$15.00
98	1 Heavy Cast.	1.00	7.50	7.50	.....

Nos.	No. Horse.	Common shares.	Cutter shares.	Common shares.		
				Cast lands.	Moulds chilled.	Beams.
3-78	R. H. only	2 Horse..	\$.75	\$.90	\$1.25	\$4.75
2-78	" "	2 "	.80	.95	1.30	5.25
1-78	" "	2 "	.85	1.00	1.35	5.75
10-78	" "	3 "	.90	1.05	1.40	6.25
20-78	L. H. only	2 "	.85	1.00	1.35	5.75
30-78	" "	3 "	.90	1.05	1.40	6.25

Snatch Rod regularly furnished with No. 2½ and No. 3.



Square steel axles are used, arched high, spindles turned and polished.

HASLUP WHEEL SCRAPERS

These scrapers are very popular with the contractor trade on account of their splendid construction and convenience. The wood wheels are made of thoroughly seasoned stock and are very strong. Metal wheels can be furnished on order. Tongues, best quality hardwood, heavily ironed, with double steel draft bars.

			Size of Bowl.	in.	in.	in.	in.	in.
No. 1	9	Cu. ft.	36	36	12	36	3x1/4	1 1/2
No. 2	13	Cu. ft.	37	38	13 1/2	40	3x5-16	1 3/4
No. 2 1/2	14 1/2	Cu. ft.	41	38	14	44	3x5-16	1 3/4
No. 3	17	Cu. ft.	41	44	16	44	3x5-16	1 3/4
No. 1	Weight, 450 lbs.						Price, \$65.00	
No. 2	—Weight, 600 lbs.						Price, \$80.00	
No. 2 1/2	—With Snatch Rod, weight 675 lbs.						Price, \$85.00	
No. 3	—With Snatch Rod, weight 750 lbs.						Price, \$90.00	
	Wood Doubletrees and Neck Yoke,						\$5.75 extra.	

The No. 24 Iron Beam, Right Hand Contractors' Plow



Oliver's Latest Pattern, Road and Grading Plow, No. 24.
IRON BEAM.

Price, Plain, \$29.50; with Wheel, \$31.50.
Above prices include one extra Share.

REPAIRS FOR CONTRACTORS' PLOWS, Price List on Page 152.

Contractors' Tubular Steel Double and Singletrees and Neck Yokes. See Page 154.

Baltimore Contractors' Plow

No. 0—Right or Left Hand; two-horse; weight, 1 80 lbs., with extra bar share, \$42.50.

No. 2—Right or Left Hand; 4 to 6-horse; weight, 270 lbs., with extra bar share, \$55.00.

No. 0—Right or Left Hand Bar Share... 6.00

No. 1—Right or Left Hand Bar Share... 6.25

No. 2—Right or Left Hand Bar Share... 6.50

No. 1—Right or Left Hand; 2 to 4 horse; weight, 240 lbs., with extra bar share, \$50.00.

Malleable Iron Standard.

Heavy Steel Beam.

Extra long steel handles, well braced. Removable side plates and steel bar point interchangeable with No. 81 Rooter Plow. Weight, 225 lbs. Price \$40.00

No. 80 CHATTANOOGA STEEL BEAM ROOTER PLOW

Similar to the No. 80 above, except it has an iron beam. Weight, 375 lbs. Price \$40.00

SYRACUSE CONTRACTORS' PLOW No. 1

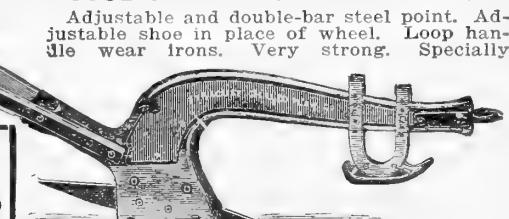
One of the best two-four horse contractors' plows. A great favorite.

SYRACUSE PAVEMENT PLOW No. 98

Adjustable and double-bar steel point. Adjustable shoe in place of wheel. Loop handle wear irons. Very strong. Specially



Hard iron wearing parts. Extra heavy beam, share and strip, steel wheel standard. Turn furrow 5 to 9 inches deep, 12 to 15 inches wide. For general grading purposes. Two to four-horse. Weighs, 185 lbs. with wheel.... \$30.00



adapted for tearing cobblestones and macadam pavements. Four or six-horse. Weight, 265 lbs. Without extra point. Price, \$45.00

SYRACUSE CONTRACTORS' PLOW No. 99
Four to Eight Horses. Weight, with Shoe, 310 lbs. Without extra Share, \$60.00

Wood Single, Double and Tripletrees



26-inch Southern Singletrees	\$0.45
28-inch Extra Nailed Singletrees . . . . .	.50
28-inch Extra Nailed, 3 Hooks, Singletrees . . . . .	.60
30-inch Heavy Singletrees . . . . .	.90
32-inch Heavy Singletrees	1.00
34-inch Heavy Singletrees	1.10
Wagon Singletrees, 36 inches	1.20
36-inch Southern Doubletrees	1.25
36-inch Heavy Doubletrees	1.40
40-inch Heavy Doubletrees	1.50
Extra Heavy Tripletrees	3.00
Singletrees, less irons . . . . .	.40
Doubletrees, less irons . . . . .	.60

WOOD NECK YOKE

No. 6—40 and 42 inches \$1.50
No. 6—48 inches 1.75



WAGON, SINGLE AND DOUBLETREES

Wagon Singletrees, No. 9 1/2, each	\$1.35
Wagon Doubletrees, No. 12 1/2, each	1.85
Doubletrees and Singletrees with neck yoke for low-down wagon trucks, per set	5.75

REPAIR LINKS AND RINGS

CHAIN REPAIR LINKS.

10-2, 25c. doz.; 10-1, 30c. doz.

SIDE OPEN LAP LINKS.

1/2x2 1/2, 15c. each; 5/8x2 1/2, 20c. each; 5/8x3, 25c.

3/4x3 35c.

SET OF WELDED CLIPS

CLIPS FOR DOUBLETREES.

No. 77.—Southern; one 5/8-in. Center Clip and Hook, welded, with 1/2-in. hook and two 1/2-in. End Clips, welded. Set, 75c.

No. 76.—Pennsylvania; one 5/8-in. Center Clip and Hook, welded, with 3/4-in. Hook and two 9-16 in. End Clips, welded. Set, 85c.

CLIPS FOR SINGLETREES.

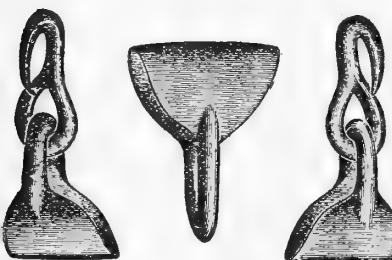
No. 75.—One Center 1/2-in. Clip, welded, and two 9-16-in. End Clips, welded, with 5-16 in. Hooks, as used on our 28-in. Singletrees. Set, 45c.

No. 74.—One Center 9-16-in. Clip, welded, and two 7-16-in. End Clips, welded, with 3/8-in. Hooks. Set, 65c.

No. 73.—One Center 5/8-in. Clip, welded, and two 7-16-in. End Clips, welded, and 3/8-in. Hooks, as used on our 34- and 36-in. Heavy Singletrees. Set, 60c.

No. 72.—One Center 5/8-in. Clip, two 1/2-in. End Clips, with 7-16 in. Hooks. Set, 85c.

CLIPS FOR TRIPLETTREES—Three Pieces. Per Set, \$1.25.



Plow Doubletrees in Sets. Three Sizes. Pattern No. 201A.

Retail.

Per Set.

No. 1—for light plowing in most soils. Doubletree, 34 inches; Singletrees, 26 inches	\$4.25
No. 2—for regular plowing in clay soil. Doubletree, 36 inches; Singletrees, 30 inches	6.00
No. 3—for extra heavy plowing or grading. Doubletree, 38 inches; Singletrees, 32 inches	6.50

Singletrees for Above Pattern No. 206A.

Retail.

Each.

26 inches	\$1.25
30 inches	1.75
32 inches	2.00

N. B. Everlasting Tubular Steel Single & Doubletrees



Retail.

Set.

\$8.00

No. 1—for regular farm wagons. Capacity, 4000 pounds; Evener, 48 inches; Singletrees, 34 inches

\$8.50

No. 2—for regular farm wagons. Capacity, 6000 pounds; Evener, 48 inches; Singletrees, 36 inches

Each.

\$2.00

No. 1—34 inches

\$2.25

No. 2—36 inches

Each.

\$2.50

No. 3—Length 44 inches over all

Tubular Steel Three-Horse Hitch or Tripletree.

Retail.

Single Set.

\$10.00

Size 2—

Evener 45 in.

Equalizer 32 in.

Singletrees 30 in.

Retail.

Single Set.

\$13.50

Southern Special Tubular Steel Double and Singletrees. For Plows and Cultivators.

No. 2—34-in. Doubletree	Retail.	Each.
No. 206B—26-in. Singletree	\$1.75	
No. 206B—28-in. Singletree	1.00	
	1.20	
No. 3—36-in. Doubletree	No. 3—36-in. Doubletree	\$1.90
No. 206B—30-in. Singletree	No. 206B—30-in. Singletree	1.40
No. 206B—32-in. Singletree	No. 206B—32-in. Singletree	1.60

U SINGLE, DOUBLE AND TRIPLETTREES.

Prices: Singletrees, with Malleable Hooks, 24-inch, 75c.; 26-inch, 80c.; 28-inch, 90c.; 30-inch, \$1.05. Doubletrees, with Hooks, 36-inch, \$1.35. Steel Tripletree Sets, complete per set of 6 pieces, \$7.00.

Improved Eureka Three-Horse Equalizer

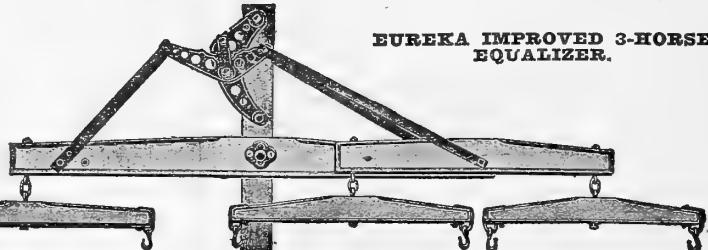
Right Hand Only.

This equalizer, while simple in construction, is strong and durable; is perfect in equalization, and absolutely removes all side draft. Can be changed very quickly from a three-horse to a doubletree by removing the long bar. PRICE, \$10.00.

New Gamble Four-Horse Equalizer No. A1

Right Hand Only.

This equalizer is similar to the above, except fitted for four horses instead of three. It is perfect in equalization, and is made of good strong material. PRICE, \$10.75.



The Stimpson Steel Pitless Wagon Scale is High Grade in every particular and has many exclusive improvements not found in any other type of Pitless Wagon Scales. We have adopted the direct steel lever construction which embodies many of the valuable features of the Stimpson High-Grade Pit Wagon Scale with the improvements and advantages of a Pitless Scale.

This Scale is provided with combination three-bar solid brass beam, carefully graduated to full capacity of scale, thus requiring no loose weights to get lost or out of seal.

The ends of the frame are each made from a heavy steel channel beam connected by tubular steel cross-pieces, secured at each corner by a strong bracket bolted to channel beam with three bolts and lock nut on tubular steel cross-piece which passes through bracket, thus making a very strong corner connection.

The corner brackets also support and hold in place the heavy hardened loops that support the steel levers, thus providing a very strong support for each lever on which the I Beams and platform with load are carried.

The levers are held in the heavy hardened loops by best tempered tool steel pivots and the Steel I Beams are also held in place by hardened bearing feet supported on levers by best tempered tool steel pivots, each one being secured in beam by hard friction steels which pass through beam preventing the loop from chafing or binding against beam. The beam pivot loops are carefully tempered. The beam is equipped with a balance ball to balance off the weight of the platform as it may vary from accumulation of ice, snow, etc., and also has a counterpoise for greater variations in weight.

The Beam Box is of selected one-inch tongued and grooved lumber, painted with two coats of best lead paint, with a heavy $1\frac{1}{2}$ -inch molded top. It is secured by steel braces to the front tubular steel cross-piece, and in addition to this is provided with heavy angle flanges, same being fastened by bolts or screws to short posts or cement foundation. Beam Box Door is provided with heavy wrought hinges and flat key lock.

No. 122—Steel Pitless Wagon Scale, 8 ft. x 14 ft., capacity 5 Tons. \$140.00

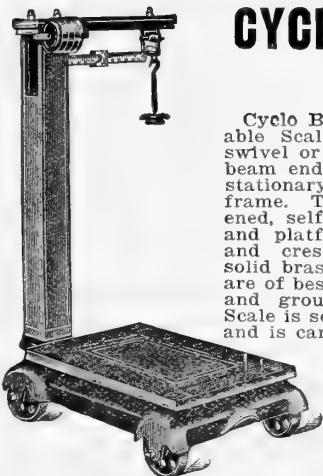
No. 124—Semi-Steel Pitless Wagon Scale, 8 ft. x 14 ft., capacity 5 Tons. \$125.00

OTHER SIZES ON APPLICATION.

STIMPSON STEEL PITLESS WAGON SCALE



PORTABLE SCALES CYCLO PLATFORM SCALE



Cyclo Ball-Bearing Swivel Wheel Portable Scales are constructed with two swivel or castor wheels at the front or beam end of frame, combined with two stationary wheels at the rear end of frame. This Scale is fitted with hardened, self-adjusting lever bearing loops and platform bearing feet. The beam and crescent-shaped sliding poise of solid brass, highly polished. All pivots are of best tool steel, carefully tempered and ground to a knife's edge. Each Scale is sealed to U. S. Standard weights, and is carefully packed.

No.	Capacity.	Price.
87.....	600 lbs.	\$26.50
88.....	800 lbs.	29.25
89.....	1000 lbs.	33.00

SIMPLEX PLATFORM SCALE

This is the best cheap grade Portable Platform Scale on the market. It is intended for use where a Scale is only used occasionally, and is not subject to hard usage. The iron parts are finished in black japan, and the wood parts are painted blue, and are well finished.

The beam is carefully graduated and made of solid brass, with brass sliding poise. The lever and beam pivots are of steel drawn to a knife edge, and are supported in hardened bearing loops.

Each Scale is sealed to U. S. Standard weights, and is carefully packed.

No.	Capacity.	Price.
94.....	400 lbs.	\$23.25
95.....	600 lbs.	24.25
96.....	800 lbs.	26.50
97.....	1000 lbs.	30.25

CRYSTAL METAL FARM BELLS

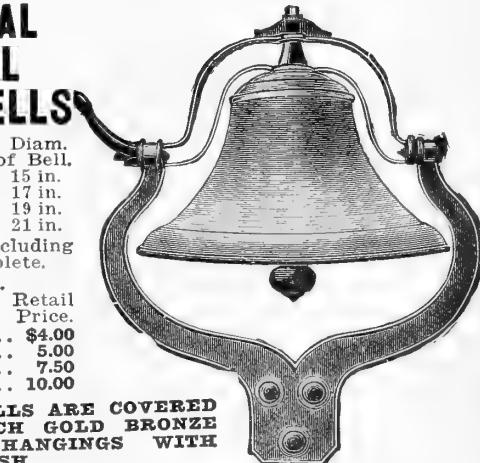
Wt. com- plete.	Diam.
No. 1.... 40 lbs.	15 in.
2.... 50 lbs.	17 in.
3.... 75 lbs.	19 in.
4.... 100 lbs.	21 in.

Prices, including hangings complete.

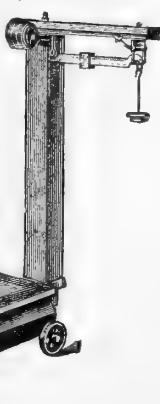
Bronzed.

No.	Retail Price.
1.....	\$4.00
2.....	5.00
3.....	7.50
4.....	10.00

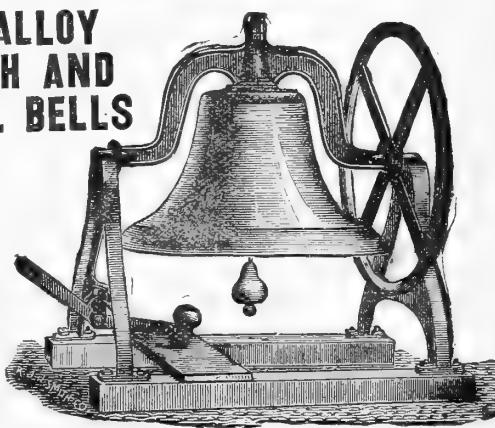
THESE BELLS ARE COVERED
WITH A RICH GOLD BRONZE
AND THE HANGINGS WITH
GOOD VARNISH.



STEEL ALLOY CHURCH AND SCHOOL BELLS



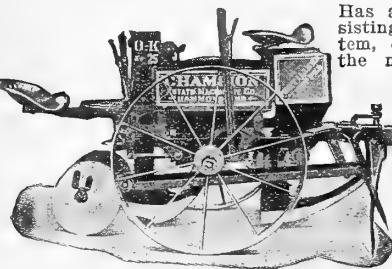
Cast from an alloy of cast steel and crystal metal, and can be relied on under all circumstances and in all seasons.



No.	Diam.	Weight, Bell only.	(MOUNTED) Wt. complete.	Retail Price.
22.....	22 in.	122 pounds.	175 pounds.	\$20.00
24.....	24 in.	153 pounds.	225 pounds.	24.00

Tolling hammer not furnished with No. 22. When furnished with No. 24, List, \$5.00; Retail, \$4.00. Prices on above named are for COMPLETE BELLS, and include wood sills and iron Wheel.

O. K. Champion Potato Planter No. 25



Has a seed-dropping device consisting of the endless-cup system, one which is recognized as the most accurate. The seed is picked up and deposited on a dial plate, which is equipped with pockets for the reception of the seed pieces, where any correction necessary can be made, insuring absolutely one piece to every hill. Tests have proven that this machine will plant absolutely 100 per cent. correct. The cups are adjustable and permit perfect planting for large or small pieces. The distances of dropping are 12, 15 and 18 inches.

The hopper is of steel construction, fitted with a sliding bottom, which causes a steady feed, and a guard permits the cups to singe out the seed pieces, no matter what the shape may be. Two shoes are used for making the furrow. The first opens the trench for the reception of the fertilizer. The second opens it deeper, spreading a thin coat of dirt over the fertilizer so as not to allow same to come directly in contact with the potatoes. The discs are 14 inches.

The seat at the rear enables the operator to be in position where he can oversee the entire work and gives him access to the levers, one of which raises or lowers the shoe and discs; the other throws the seed feed in or out of gear. Whenever regular sized pieces and a steady team are used it is not always necessary to use two men on this planter. The driver can operate it from the rear seat.

This machine can also be converted into an automatic planter. This planter embodies all requisites necessary to make it a durable machine, and in construction it is very simple.

Weighs with fertilizer attachment about 350 pounds.
List Price \$205.00
Our Special Price 120.00

Acme Tubular Hand Potato Planter

THE LIGHTEST TUBULAR PLANTER MADE.

Its spring-closed jaws are especially designed to enter the soil easily, yet open wide enough to drop the largest seed. The dropping lever or dump is adjustable for any depth of planting. The conveyor tube is galvanized iron.

Our Special Price, \$2.25; List Price, \$3.70.

Directions for Using.—Walk erect, plunge planter into the soil, press forward as you withdraw it; seed is left in moist soil, not dry, as is usually the case when seed is dropped by one man and left to be covered by another.

"Acme" Hand Potato Planter

This is similar to the above, except it is not tubular, but a stick planter. We do not carry these in stock, but can furnish them direct from the factory. Same directions for working apply on this as on the "Peerless."

Our Special Price, \$1.75; List Price, \$2.40.



O. K. CHAMPION POTATO DIGGER

List Price \$212.50

Our Special Price \$125.50

Weight 580 Lbs.

Catalogue.
Send for Special



The O. K. Champion Digger with its many superior features commends itself to the careful buyer. It has stood the test of years and has many times proven to be the victor in the potato field over all competitors. Its construction embodies all the essential features which make it absolutely reliable. It is built with a view to simpleness, doing away with all unnecessary wearing parts, which accounts for its easy draught. Two horses will do the work with ease. There is no chain drive to cause friction and wear; only two gear wheels are employed on the entire machine.

The shovel is 20 inches wide, scooping up that width of ground and potatoes, depositing them on the elevator separating apron, whose links are alternately raised and lowered. These run over a sprocket agitator, which keeps the apron continuously agitated up and down, causing the separation to be done with the least possible power requirements and giving the machine a good separating capacity. The potatoes then fall upon the rear shaking fork rower, thoroughly cleaning any remaining dirt from the potatoes, and depositing them in a row of about 12 inches behind the machine.

GRITCO-B POTATO DIGGER



This is a tool that has won great favor with the potato growers everywhere. It is an easy-running tool, and one that saves a great deal of time. It throws all of the potatoes out of the ground without cutting, and leaves them clean and whole on top of the ground. Has extra heavy steel beam, with high arch to prevent clogging. Long adjustable handles. Double gauge wheel following the furrow on either side of the hill, and adjustable gauge wheel running on the solid ground in the rear.

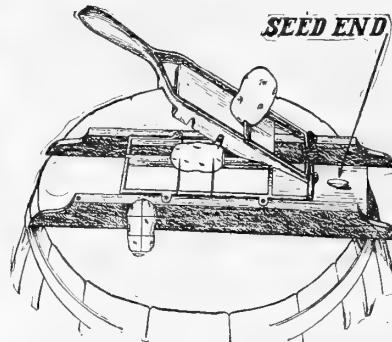
Our

	List Price.	Special Price.
Digger with Double Front Gauge Wheel.....	\$30.00	\$18.75
Digger with Single Front Gauge Wheel.....	26.00	16.25

HITCHCOCK POTATO DIGGER

	List Price.	Special Price.
Hitchcock Digger	\$20.00	\$12.50
Steel Point	2.90	1.80
Beam	9.60	6.00
Cast Head	4.80	3.00

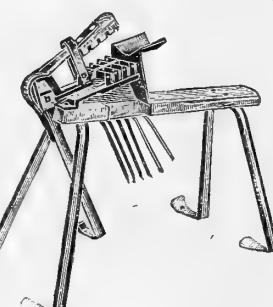
THE GEM SEED POTATO CUTTER



The construction of the Gem Seed Potato Cutter is very simple, and is built for accuracy as well as convenience. It is strong and durable; the knives are of good quality steel and are fitted to grooves in frame, making them easy to remove if necessary. It will cut any size potato in pieces uniform in size, thereby insuring more accurate planting when power planter is used. Size, 24 inches long, 8 inches wide. Weight, 8 pounds. List Price, \$8.00. Our Special Price, \$5.00.

O. K. Champion Potato Cutter

Cuts potatoes in exact sizes that are best suited to plant with any power planter. To cut by hand means all shapes, both large and small. Will cut five to seven bushels per hour. No power planter can plant correctly unless the tubers are cut an exact size. Planting large sized seed insures a better stand because there is more nourishment furnished the young plant than can be had from small seed. Many times it has been noticed that many potatoes will be up three or four inches before others break through the surface, and frequently they never show themselves, which failure is placed to bad seed, when really it is owing to too small seed.



List Price, \$12.50; Our Special Price, \$8.00.

GRITCO C BROADCAST LIME DISTRIBUTOR



One horse, with screen.....	\$50.00
One horse, without screen.....	45.00
Two horse, with screen.....	55.00
Two horse, without screen.....	50.00

The Shaker Board hangs from the bottom of the hopper, and is controlled by a chain, holding it at any desired angle and broadcasting the lime evenly.

The Wind Break hangs from the shaker board, free to swing in any direction if an obstruction is met, and prevents wind sweeping under the machine and carrying the lime away.

The rapid increase in the use of lime demands a machine to apply these materials which is moderate in cost and accurate in its distribution.

This distributor is designed for broadcasting lime and ashes, and it will distribute in drills or rows when supplied with an extra feed plate especially punched according to the width of the row.

The amount of lime this machine will sow to the acre depends somewhat on its weight per bushel, as well as its condition, but the 13 notches of feed opening average to spread from 250 lbs. per acre at the lowest notch to 3550 lbs. at the highest notch.

Special features make this distributor lead all machines of its kind and work where others fail.

The Agitator, or beater, in bottom of the hopper revolves only when the load is being spread. It does not turn constantly.

Revolving Prongs with 3½-inch spaces placed directly over the feed openings make a forced feed that is most satisfactory.

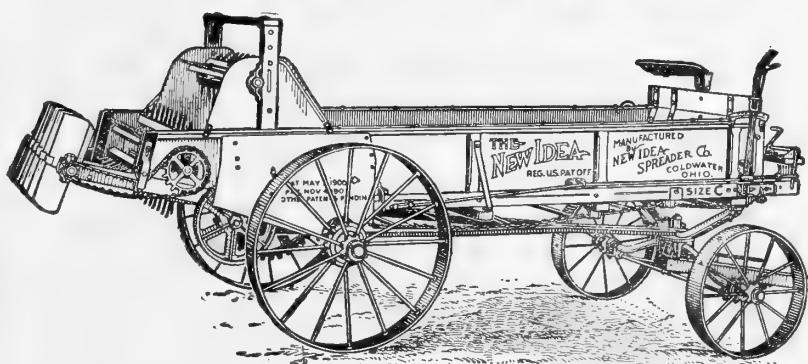
The Feed Plate is of short sections of cast iron, and the slide plate directly beneath it is of steel, separated from the feed plate by liners.

Hand Shaker (at the driver's right hand) is used only when lime is damp or does not fall freely into the agitator. It helps even spreading, which is a great feature.

When the load is off, the chain is raised off the large sprocket wheel, and there is no wear in driving to and from the field. This cut also shows the reach or coupling used, which makes it impossible to strain the bed—a very common occurrence on other machines.

When the load is off, the chain is raised off the large sprocket wheel, and there is no wear in driving to and from the field. This cut also shows the reach or coupling used, which makes it impossible to strain the bed—a very common occurrence on other machines.

THE NEW IDEA



Front Wheels, 28 Inches; Hind Wheels, 40 Inches.

Weight, 1740 Pounds.

OUR SPECIAL FERTILIZER DISTRIBUTOR



This cut shows Our Special Fertilizer Distributor, which has become very popular. It has a positive force feed, and will sow all kinds of fertilizer. It is made of the best material, and is practical.

Our Special Price, \$25.00.

The range of feed can be instantly changed whilst the machine is in operation by shifting the lever on the right side of the machine, and can be stopped entirely. As the feed and drive work independently of each other, if you get to a place where you do not wish to spread, keep your machine running and merely shut off the feed.

When the manure leaves the two cylinders it drops on the rapidly rotating distributor at the rear end, which, through its speed and its obliquely set paddles, breaks up any bunches that might pass over, and spreads the manure out in a wide and even spread, fully the width of the wheel tracks. Even, not thick in the center and thin on the edges.

Spreading the width of the track makes it unnecessary to drive over the spread manure with the New Idea, a necessity with all others. This feature alone is worth the price of the machine, and when once seen in operation will convince the most skeptical buyer.

The Conveyor of the New Idea is made out of two strands of No. 77 malleable chain, fastened to heavy channel steel bars, and is endless, and runs over a solid bottom, something similar to the bottom of a wagon box. It lasts a lifetime with ordinary care.

Traction lugs are furnished with each machine. This is another New Idea device. Very efficient and easy to remove when not needed. The rear wheels have square holes punched in them, and lug bolts are inserted and clamped tight with a nut.

BOTH WHEELS DRIVE.

The rear axle revolves in long journals, and is fitted with ratchets on each end, which engage in the notches in the hub of the rear wheels. Very simple and durable.

Prices of New Idea Manure Spreaders—75-Bushel Capacity, with Three-Horse Eveners

\$200.00

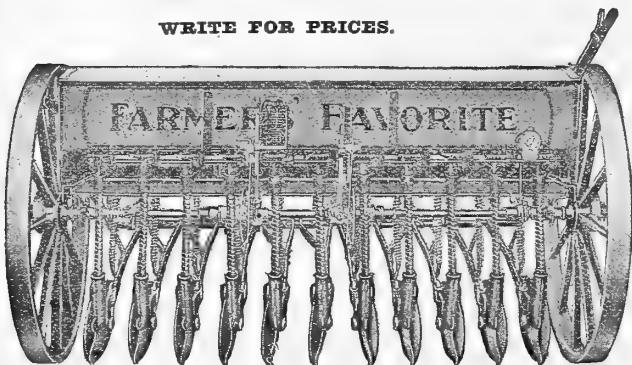
Additional for Top Sides..... 3.00

Brake, Additional 8.50

Write for Special Circular of NEW IDEA SPREADER.

BICKFORD and HOFFMAN FARMERS' FAVORITE GRAIN and FERTILIZER DRILL

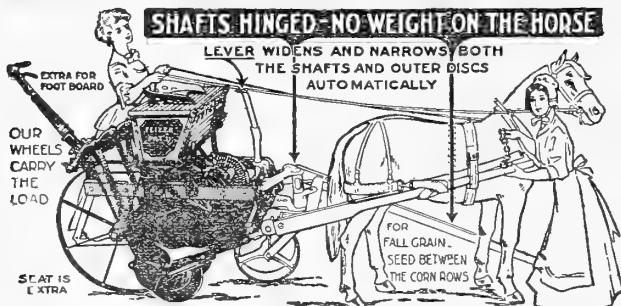
WRITE FOR PRICES.



Both the grain and fertilizer are positive force feeds, and will sow with absolute regularity any kind of grain, or fertilizer in good condition. The grass seeder is also a force feed, and can be used either in front or rear of the hoes; also quantity can be changed to any amount necessary. It is fastened on the frame, and very low down, thus preventing the wind from blowing the seed away before reaching the ground. The fertilizer feed can be stopped or started at any time while the drill is in motion, which makes it convenient in case the operator does not wish to sow fertilizer while going over the ground.

8-Hoe Pin.....	10-Hoe Spring.....
9-Hoe Pin.....	11-Hoe Spring.....
10-Hoe Pin.....	8-Disk Drill.....
11-Hoe Pin.....	9-Disk Drill.....
8-Hoe Spring.....	10-Disk Drill.....
9-Hoe Spring.....	11-Disk Drill.....

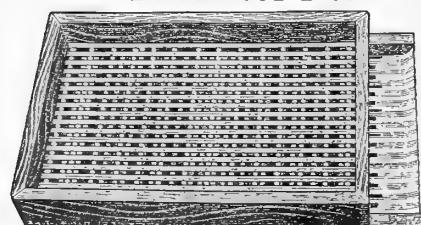
MODERN ONE-HORSE DRILL FIVE DISKS



	List Price.	Our Special Price.
Price, with Rigid Frame.....	\$41.60	\$33.25
Extra for Truck Wheel.....	3.00	2.40
Fertilizer Attachment Extra.....	9.00	7.20
Grass Seeder Attachment Extra.....	4.50	3.60
Extra for Oat Agitator.....	2.00	1.60
Extra for Widening and Narrowing Lever.....	2.00	1.60

PERFECTION CORN GRADER

NO ONE WHO PLANTS CORN CAN AFFORD TO BE WITHOUT A CORN GRADER.



over by the Experiment Stations and by thousands of farmers.

DOUBLE SCREEN,
List Price, \$30.00 Dozen. Our Special Price, \$2.00 Each.

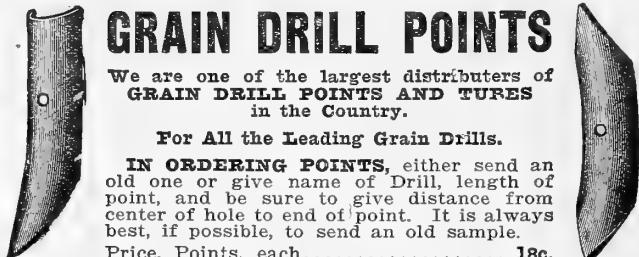
GRAIN DRILL TUBES



Plain Top.

IN ORDERING TUBES it is always best to send an old tube as a sample. If that cannot be done, be sure to state name of Drill, the kind of Tube, whether ring flange or plain top, or special bell-shaped top with straps, and by all means the length and diameter at top and bottom.

Plain Tubes, each..... 30c.
Bell Top Tubes, with strap, each..... 55c.



GRAIN DRILL POINTS

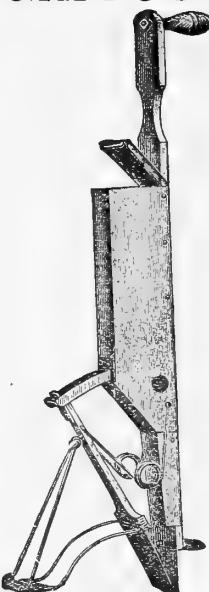
We are one of the largest distributors of GRAIN DRILL POINTS AND TUBES in the Country.

For All the Leading Grain Drills.

IN ORDERING POINTS, either send an old one or give name of Drill, length of point, and be sure to give distance from center of hole to end of point. It is always best, if possible, to send an old sample.

Price, Points, each..... 18c.

GRITCO HAND CORN PLANTER



In the Gritco there is no chance of cracking the corn, beans or other delicate seed, because of the Chinese bristle brush cut-off. No casting about the planter. The stamped steel slide is formed on a segment of the circle, whose center is the pivot of the blades. Means are provided to plant pumpkin seed at the same time with the corn. Slide quickly adjusted for different sized seeds. Galvanized iron hopper, smooth, polished hardwood handle.

List, each, \$4.00. Retail each, \$3.00.

ACME ROTARY AUTOMATIC HAND CORN PLANTER

ITS ROTARY SLIDE has a motion two ways—back and forth. It prevents skips. No matter how short the stroke, the pocket is pushed into the corn and back into the conveyor tube.

This motion is positive. It breaks up all bridging and fills the pocket uniformly—it counts the kernels for each drop.

List, each, \$5.00. Retail, each, \$3.25.

CHECK-ROWER WIRE

FOR ALL THE LEADING PLANTERS.



Carry in stock the following sizes:

3 ft., 3 ft. 2 ins., 3 ft. 4 ins.,
3 ft. 6 ins., 3 ft. 8 ins., 3 ft. 10
ins. and 4 ft.

The above comes in 10, 20, 40 and 80-rod rolls. Per Rod,
List, 10c. RETAIL, 7c.



"GRITCO" ONE-HORSE COMBINED CORN & COTTON DRILL NO. 4

The "Gritco" No. 4 Combined Corn and Cotton Drills are sure to satisfy the operator, because these Drills are sure droppers, accurate spacers, very simple, easy to operate and especially strong and durable.

The illustrations give a very good idea of the Runner "Gritco" No. 4 Drills, which can be had with or without force feed and fertilizer attachment.

A special cotton sowing device is furnished for this Drill, which handles cotton seed very accurately, being easily attached by removing the cast ring bolted to the bottom of the hopper, the corn plate and cap, and substituting the ring and plate for cotton seed. This gives a combination drill of unusual merit, since the buyer has the advantage of being enabled to use any of our special seed plates listed for the "Gritco" No. 4 Corn Planter.

Can furnish the No. 4 Planters in either Edge or Flat Drop.



Planter
with Fertilizer
Attachment.

Plain Planter	\$17.50
Planter with Fertilizer Attachment	21.90
Cotton Sowing Device	3.75

"Gritco" Combined Disc Corn and Cotton Drill No. 5



Planter with
Fertilizer Attachment
showing turn over
Fertilizer Hopper.

Double Discs are used to open the furrow. Discs are mounted upon chilled journals, which are attached to the tube that receives the seed. The convex sides of the discs press open the furrow as the Drill is moved forward, making a seed bed as perfect as could be desired. The seed, after dropping from the plate in full view, is conducted down through the cast spout or tube and deposited between the discs at the bottom of furrow. Every seed is in plain view of the operator until it reaches the bottom of the trench. The operation of the discs in opening up the furrow is very satisfactory.

The device for sowing cotton seed with the "Gritco" Combined Corn and Cotton Drill No. 5 is interchangeable in the hopper with the regular corn dropping mechanism, making a combination drill of unquestioned merit. There is ample provision, by means of projecting lugs and wrought standards, for thoroughly agitating the seed in the hopper, thus assuring proper filling of the cells.

Plain Planter	\$17.50
Planter with Fertilizer Attachment	21.90
Cotton Sowing Device	3.75

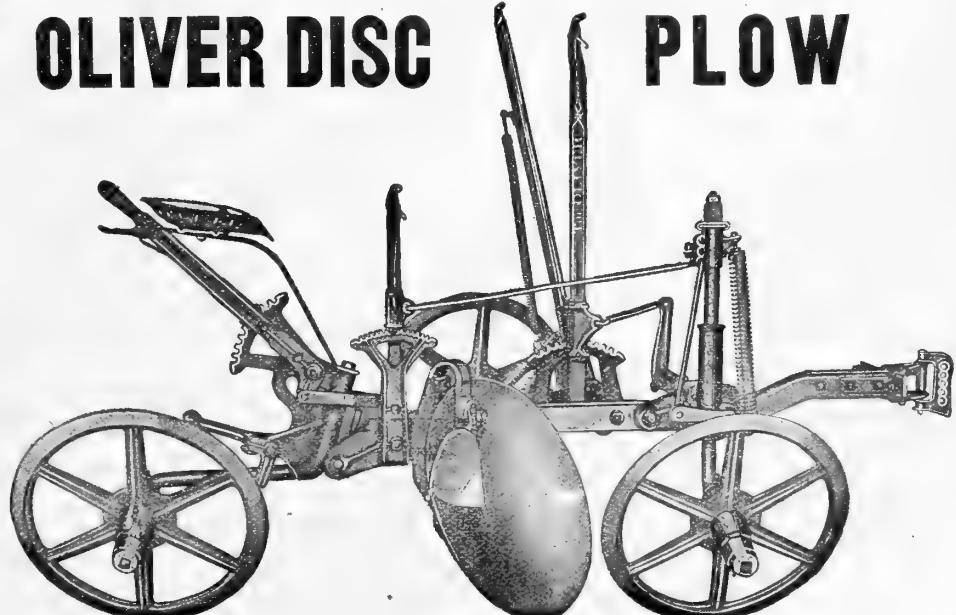
The Disc Plow satisfactorily turns sticky, waxy, black loam soil where a Mouldboard Plow will not scour. The Oliver Disc Plow is modern, exactly meeting the demands of such conditions.

These plows combine a number of typical Oliver features and improvements that makes their work excel in difficult plowing conditions. These include disc adjustment to three positions without the use of wedges. Crank motion instead of sliding axle in the rear wheel construction; accessible, powerful levers assisted by heavy coil springs, adjustable mouldboard shape scrapper that turns and crumbles the soil, adjustable hitch and a well-braced, rigid frame.

No. D31, 24-inch Discs,
\$85.00.

No. D21, 20-inch Discs,
\$55.00.

OLIVER DISC PLOW



JANESVILLE CORN PLANTER SHAFT DRIVE

The Janesville Planter is made adjustable in width 3 feet to 4 feet. This corn planter was developed so as to retain a high average per cent. of number of kernels that one desired to plant in a hill, and can be instantly changed from 2, 3 or 4 kernels.

1. Convertible drop—edge or flat. This feature was devised to meet the condition where a farmer on occasion may not care to take the time to select his seed corn.

2. Automatic throw-off to wire simplifies the operation of machine.

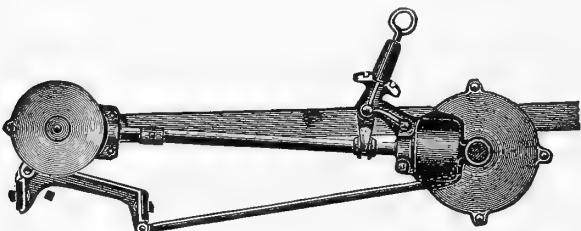
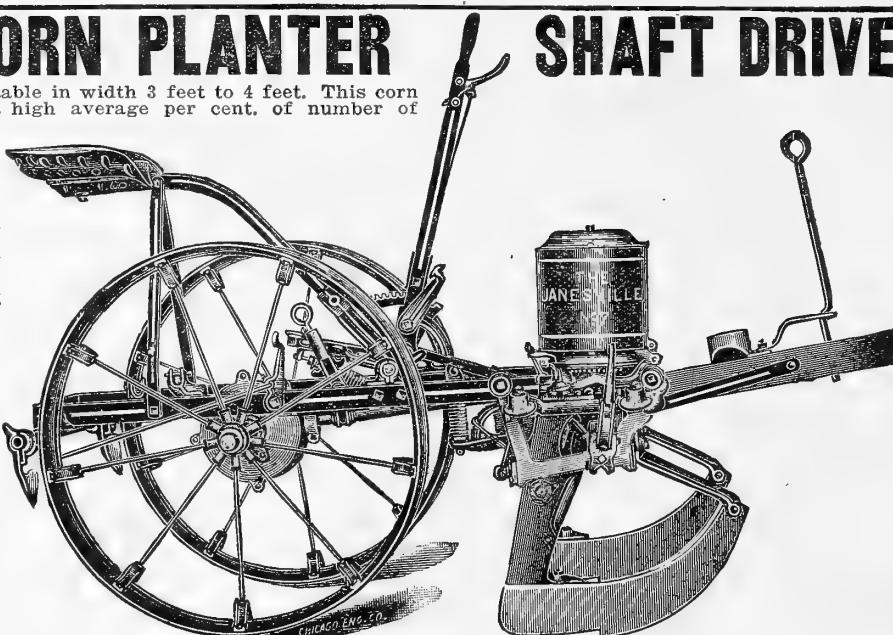
3. Automatic distribution of wire on reel—another labor- and time-saving feature.

4. Gear drive planters with adjustable drop.

A steel chain is attached to raising lever in such way that it can be made automatic in the operation, or set so that operator releases wire at his will.

Through the improved construction it is possible for operator to change from hill drop to drill drop without leaving his seat, or even without stopping team. A combined foot drop and drill drop attachment is placed to rocker shaft, which enables operator, by simply pressing this lever by the center, to lock valves in planter opening, and throw clutch into gear so it will run continuously and, of course, drill. When used as a foot drop simply do not press the lever down so far.

Valves on Janesville Planter are so placed that there is no possibility of mixing the hills. Upper valve is located so close to seed plate that it cannot get out of time, and lower valve is so constructed that it can free itself readily from dirt or trash that may get into it. The valve movement ensures your being always in check whether you drive fast or slow, and rows will be straight. The force feed takes care of increased momentum in fast driving. Change from edge drop to flat drop is effected by simply altering seed plates. Change from hilling to drilling is made by throwing clutch in gear with lever. Lastly, without stopping team, 2, 3 or 4 kernels may be dropped to a hill by operating small hand lever within easy reach. A rod running from rear axle to front frame throws machine out of gear when raised at ends to turn around.



Showing the Shaft Drive and Quick Change on the No. 7 Planter, to plant 2, 3 or 4 grains in a hill without changing the plates. This great convenience saves time, and allows you to plant the different number of grains in different portions of the field without stopping.

	Our List Price.	Special Price.
No. 7 Gear Drive Plain Planter with Check Rower, 80 rods Wire, Edge Drop only.....	\$134.40	\$80.00
No. 7 Gear Drive Plain Planter, with Check Rower, 80 rods Wire, with both Edge and Flat Drop	136.70	82.00
No. 8 Plain Planter Drill Drop only without Check Rower	121.00	72.60
For Disk Planters add to above.....	4.50	3.00
Fertilizer Attachment for any of the above add	35.00	20.00

PLANTER RUNNER SHOE



Per Pair, List Price, \$4.00. Our Special Price, \$2.50.

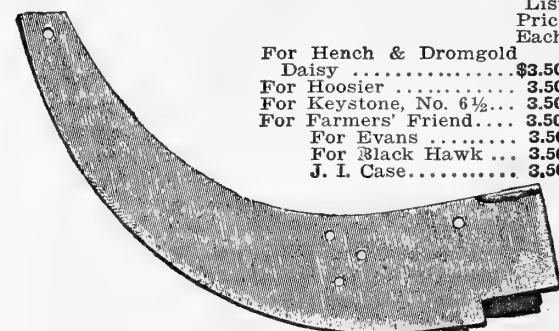
SEED CORN.
On page 16 you will find listed with prices the finest varieties of Sweet Corn that can be procured.
Our Field Seed Corn listed on page 42 is selected with the utmost care, and it will pay you to buy your seed from us, as the seed is a very important factor in the yield of the crop.

CORN PLANTER RUNNER

In ordering Planter Runners always state, as near as possible, the year Planter was made; whether steel or wood frame; or, better still, a diagram showing position of hole and size of bend.

RUNNERS FOR SINGLE ROW PLANTERS.

	Our List Price.	Special Price.	Per Each.
For Hench & Dromgold			
Daisy	\$3.50	\$2.50	
For Hoosier	3.50	2.50	
For Keystone, No. 6½	3.50	2.50	
For Farmers' Friend	3.50	2.50	
For Evans	3.50	2.50	
For Black Hawk	3.50	2.50	
J. I. Case	3.50	2.50	



	List Price.	Our Sp'1 Price	Per Pr.	Per Pr.
For Double Row Planters.				
For Janesville, Nos. 1, 5, 7 and 8	\$7.00	\$5.00		
" Black Hawk, No. 1	7.00	5.00		
" Black Hawk, No. 4	7.00	5.00		
" Black Hawk, No. 5	7.00	5.00		
" Deere, No. 8	7.00	5.00		
" Deere, No. 9	7.00	5.00		
" Deere, No. 999	7.00	5.00		
" J. I. Case	7.00	5.00		
" Evans' Steel Frame	7.00	5.00		
" Evans' Wood	7.00	5.00		
" Evans' Simplex	7.00	5.00		
" Superior	7.00	5.00		
" Hoosier, No. 10	7.00	5.00		
" Hoosier, No. 11	7.00	5.00		
" Tiger, No. 4	7.00	5.00		
" Tiger, No. 10	7.00	5.00		
" Bullseye	7.00	5.00		
" Union Victor	7.00	5.00		

CELEBRATED APPLETON CORN HUSKER

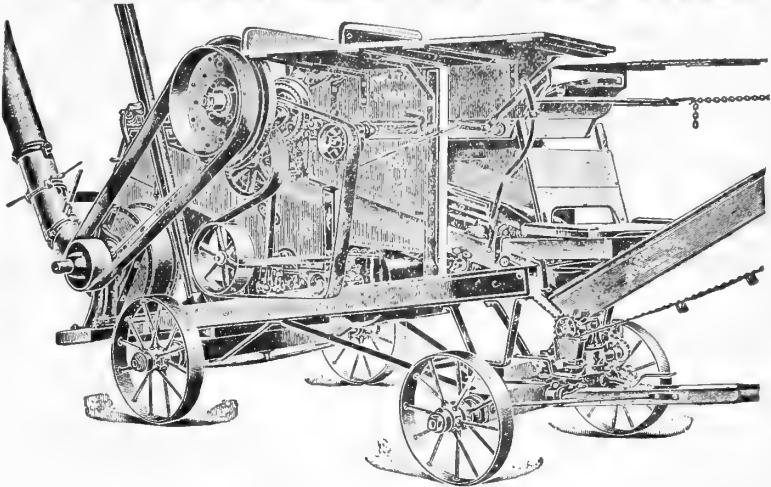
This Husker will do the work. It is no experiment. It is superior to all others. We will be pleased to send anyone names of representative farmers who are using the Appleton Husker and will testify in its favor. We know that most Huskers have failed to give satisfaction. **The Appleton Husker never fails to measure up to the expectation of purchaser. Write for interesting Husker Catalogue.**

We guarantee that under the same conditions the Appleton Husker will do more and better work than any other Corn Husker on market; that it is simpler and requires less power. It is easier and safer to feed.

Capacity of Appleton Corn Huskers and Power Required.

Size.	Horse-Power.	Capacity Per Hour.
No. 14.....	4- 6	12- 25 Bushels.
No. 18.....	6-10	40- 60 Bushels.
No. 24.....	8-12	60- 90 Bushels.
No. 32.....	15-20	80-125 Bushels.

Above power for cutter head. For shredder head we recommend 4 H. P. more.



No. 14—Two-Roll Husker, with cutter head, swivel, ear-corn carrier, 20-ft. blower and wheel mounting.....	\$412.00
No. 14—Husker, with shredder head instead of cutter head.....	426.00
No. 14—Husker, with both cutter and shredder head.....	458.20
No. 18—Four-Roll Husker, with cutter head, swivel, ear-corn carrier, 20-ft. blower and wheel mounting.....	527.00
No. 18—Husker, with shredder head instead of cutter head.....	541.00
No. 18—Husker, with both shredder and cutter head.....	580.20
No. 24—Six-Roll Husker, with cutter head, swivel, ear-corn carrier, 20-ft. blower and wheel mounting.....	740.00
No. 24—Husker, with shredder head instead of cutter head.....	754.00
No. 24—Husker, with both cutter and shredder head.....	796.00
Blower Pipe, extra length, per foot.....	1.50
No. 32—Eight-Roll Husker, with cutter head, swivel, ear-corn, carrier, 20-ft. blower and 4-wheel mounting, f. o. b. factory.....	917.00
No. 32—Husker, with shredder head instead of cutter head, f. o. b. factory.....	935.00
No. 32—Husker, with both shredder and cutter head, f. o. b. factory	987.00

MONARCH SEMI-STEEL STUMP PULLERS

Monarch Stump Pullers embody in their construction special features which make them the strongest and most efficient machines for such work. The heavy solid one-piece main frame, the grooved drum, the drum clutch, the high-grade cable and other features place the Monarch Stump Pullers in a class to themselves. Special catalogue fully describing these features mailed free on application.

If interested in Stump Pullers, write for our catalogue of the Monarch line, which is very complete and useful; also let us know how much stumpy land you have, the kind of soil, the kind and size of stumps, how close to the ground they are cut, and whether they are green or dead. This information will enable us to recommend the equipment most suitable for your work.

No. 3—Semi-Steel One-Horse Stump Puller, equipped with 50 feet of $\frac{3}{4}$ -inch pull cable and 8 feet of $\frac{3}{4}$ -inch anchor cable. For ordinary stumps. Weight, 450 pounds. **Our Price, \$90.00**, with 75 feet of pull cable.

No. 4—Monarch Semi-Steel Stump Puller, 75 feet $\frac{3}{4}$ -inch pull cable, 10 feet $\frac{3}{4}$ -inch anchor cable. Weight, 675 pounds. **Our Price, \$111.00**. Extra cable (to make pull cable any length you want), per foot, —.

No. 4—Cam Take-Up, with 10 feet $\frac{3}{4}$ -inch cable and steel cable hook. Weight, 50 pounds.....\$29.25

No. 4—Double Power Pulley, 12 feet 1-inch cable and steel cable hook. Weight, 65 pounds.....\$37.00

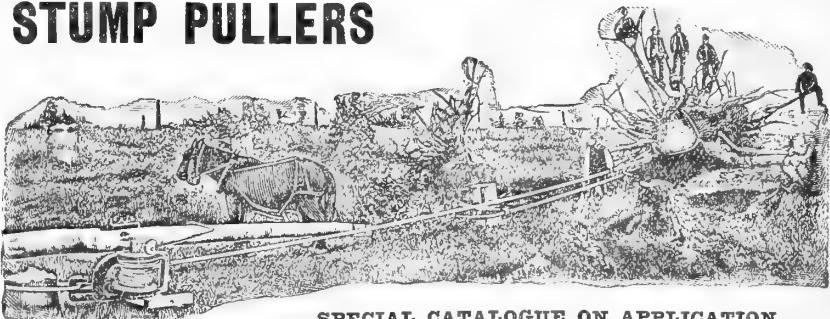
No. 5—Monarch Semi-Steel Stump Puller, 75 feet $\frac{3}{4}$ -inch pull cable, 12 feet $\frac{3}{4}$ -inch anchor cable. Weight, 875 pounds. **\$156.00**. Extra cable (to make pull cable any length you want), per foot, —.

No. 5—Cam Take-Up, 12 feet $\frac{3}{4}$ -inch cable and steel cable hook. Weight, 70 pounds.....\$37.00

No. 5—Double Power Pulley, 15 feet 1 $\frac{1}{4}$ -inch cable and steel cable hook. Weight, 95 pounds.....\$49.00

No. 6—Monarch Semi-Steel Stump Puller, 75 feet 1-inch pull cable, 12 feet 1-inch anchor cable. Weight, 1075 pounds. **\$192.00**. Extra cable (to make pull cable any length you want), per foot, —.

No. 6—Cam Take-Up, 12 feet 1-inch cable and steel cable hook. Weight, 80 pounds.....\$50.35



SPECIAL CATALOGUE ON APPLICATION.

No. 6—Double Power Pulley, 15 feet 1 $\frac{1}{4}$ -inch cable and steel cable hook. Weight, 110 pounds.....\$57.00

No. 7—Monarch Semi-Steel Stump Puller, 75 feet 1 $\frac{1}{4}$ -inch pull cable, 15 feet 1 $\frac{1}{4}$ -inch anchor cable. Weight, 1450 pounds.....\$285.00
Extra cable (to make pull cable any length you want), per foot, —.

No. 7—Cam Take-Up, 15 feet 1 $\frac{1}{4}$ -inch cable and steel cable hook. Weight, 150 pounds.....\$70.00

No. 7—Double Power Pulley, 20 feet 1 $\frac{1}{4}$ -inch cable and steel cable hook. Weight, 150 pounds.....\$79.25

MONARCH BESSEMER STEEL STUMP HOOKS.

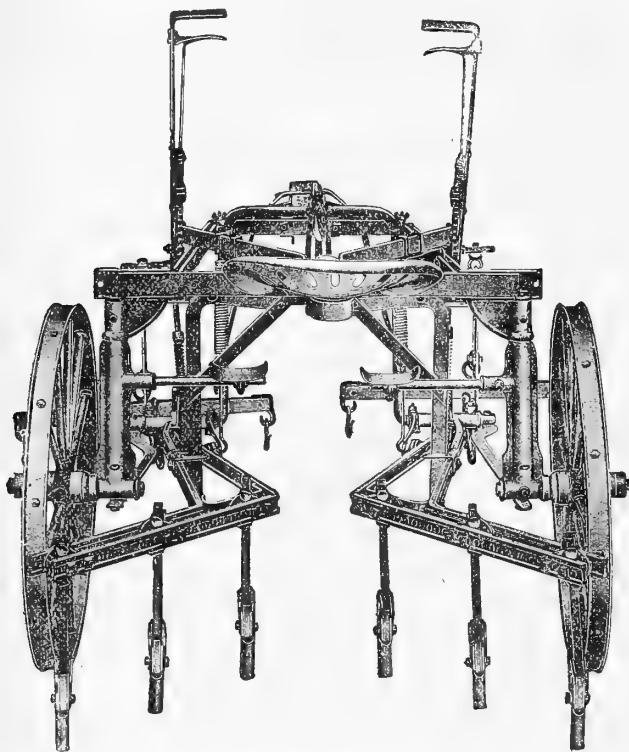
Notice the sharp cutting edges on the inside of each prong and the heavy steel back of them, which counts for strength.

No. 4—Regular Mesquite Stump Hook, for use with No. 2, No. 3 and No. 4 Mighty Monarch Stump Pullers; used extensively for heavy brush hedge, palmetto, mesquite and old stumps. Weight, 65 pounds. **Our Price, \$25.25**.

No. 7—Medium Mesquite Stump Hook, for use with No. 5 and No. 6 Mighty Monarch Stump Pullers; for heavy stumps and heavy mesquite, etc. Weight, 85 pounds. **Our Price, \$35.00**.

No. 8—Giant Mesquite Stump Hook, for use with No. 7 Mighty Monarch Stump Pullers or on large double, triple and quadruple power outfits for extra heavy work where no other stump hook will stand the strain. Weight, 160 pounds.....\$66.00

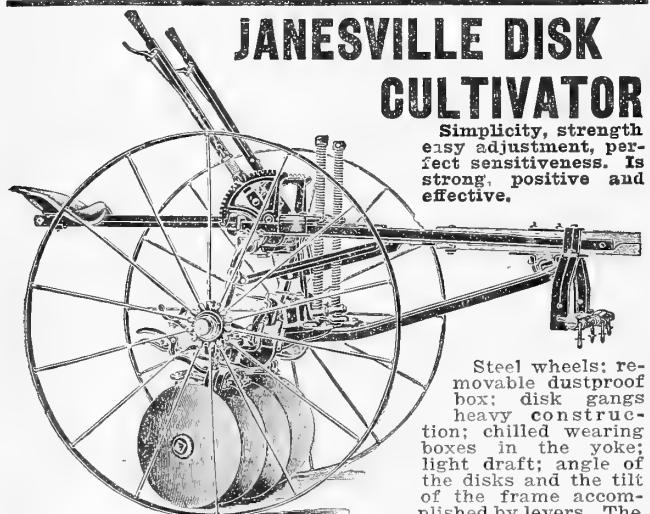
Genuine Brown Pivot Axle Jr. Riding Cultivator



This is a general purpose Cultivator with high wheels, adapted for use on rough or hilly land, though equally successful in the cultivation of level land. It is made mostly of steel and malleable, light in weight and strong in construction, and works easily in the most difficult soils.

The shovels are held at uniform depth in the soil, whether hard or soft, by strong pressure. It has powerful leverage for the convenient shifting of the wheels and gangs which move together, responding quickly and easily. The wheels are adjustable to different widths.

6-Shovel Pin Hoe.... \$56.25 6-Shovel Spring Hoe... \$62.50
8-Shovel Pin Hoe.... 58.25 8-Shovel Spring Hoe... 64.50



one machine that is imitated by other Disk Cultivator manufacturers.

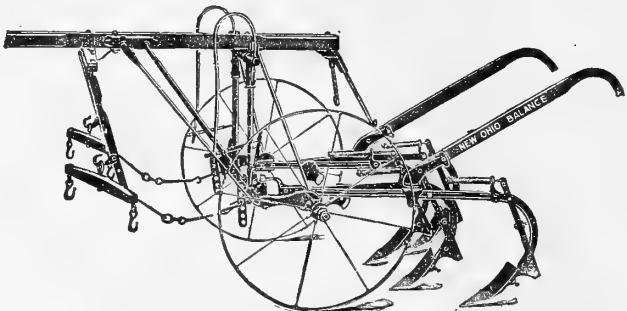
A hand lever, operated without leaving the seat, sets the gangs at any desired cutting angle and enables the driver to throw as much dirt to the plants as he desires.

You can run it up close to the young plant without cutting off or wounding the lateral roots.

The Janesville cuts and buries trash, vines, stalks, and kills the weeds.

Price, with Pivot Axle..... \$76.25

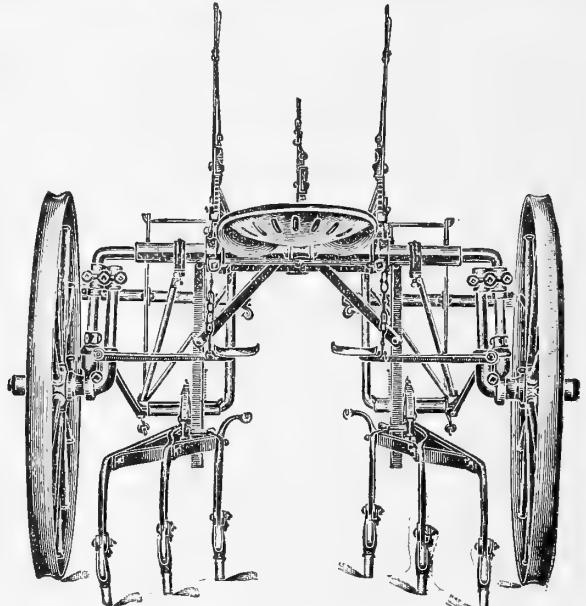
Genuine Brown Balance Frame Walking Cultivator



This is a double parallel beam Cultivator, designed for cultivating corn in rooty, stumpy or rough ground. It is a very strong tool and one that is easy to operate. Location of the frame at a greater distance in front of the hub of the wheel than is found in the usual construction, exerts greater force in counteracting the pressure of the lifting springs so as to prevent the tongue from flying up in cultivating rough ground.

4-Shovel Pin Hoe	\$34.50
6-Shovel Pin Hoe	38.75
4-Shovel Spring Hoe	38.00
6-Shovel Spring Hoe	43.75

BIG JANESEVILLE CULTIVATOR



This Cultivator is built to meet the demand for an adjustable arch, pivot axle cultivator. It is the quickest dodger in crooked corn of any cultivator of its class.

This machine can be successfully operated by any youth able to drive in a corn field.

On side hills, heavy soil or crooked rows this machine is especially recommended on account of its extreme ease in operation.

The wheels are 42 inches high with 2½-inch concave tires. Weight about 475 pounds.

6-Shovel Pin Hoe..... \$65.75 8-Shovel Pin Hoe..... \$67.25

The above are equipped with 3-inch shovels only.

Little Janesville Cultivators

6-Shovel Pin Hoe.....	\$62.00	8-Shovel Spring Hoe... \$72.50
6-Shovel Spring Hoe...	69.00	

Janesville Balance Frame Walking Cultivator

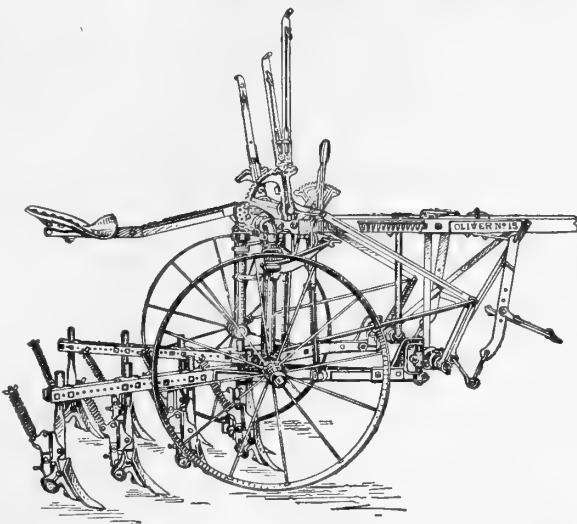
6-Shovel Pin Hoe.....	\$39.50	6-Shovel Spring Hoe... \$45.75
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8-Shovel Pin Hoe.....	40.75	
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The above are equipped with 3-inch shovels only.

OLIVER RIDING CULTIVATOR

Nos. 15 and 26.



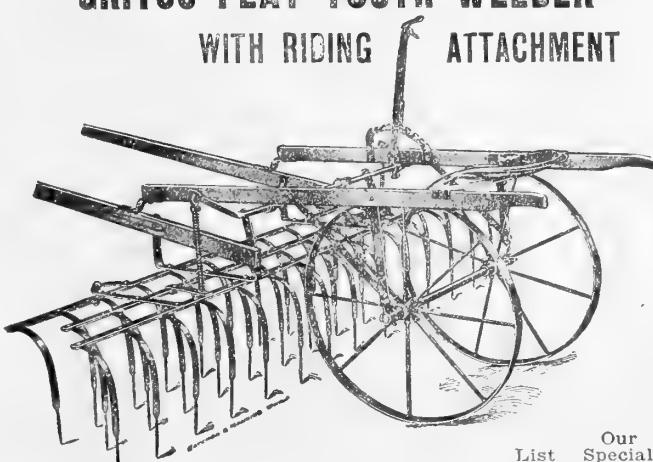
The No. 26 is well constructed of steel and malleable parts, and it has all the adjustments necessary to perform the required work. When you look at the machine you will agree with us that it will do the work well, and it is amply strong to stand up under the work.

The No. 15 has a balance frame and the horse lift. The tread of the wheels can be narrowed down for cultivating rows that are planted close together, and can be widened out to give more room for steering the gangs and wheels when the rows are crooked or out of check. The frame does not project over the wheels when the wheels are set for narrow track. There is ample clearance of the arch. The No. 15 has pole adjustment up and down, so that the frame is always level, regardless of the size of the team. The Pivot axles are equipped with ball-bearings, which makes this cultivator easy to operate. The No. 15 is equipped with three levers for operating the gangs. The long lever raises and lowers both gangs. The two short levers are used to regulate the depth of each gang, or raising the gangs independently to free the shovels of trash or pass over an obstruction. The short lever directly in front of the operator is used to widen or narrow the gangs.

	Our List Price.	Special Price.
6-Shovel Pin Hoe.....	\$105.00	\$63.00
8-Shovel Pin Hoe.....	107.50	64.50
6-Shovel Spring Hoe.....	115.50	69.00
6-Shovel Spring Hoe.....	121.80	73.00

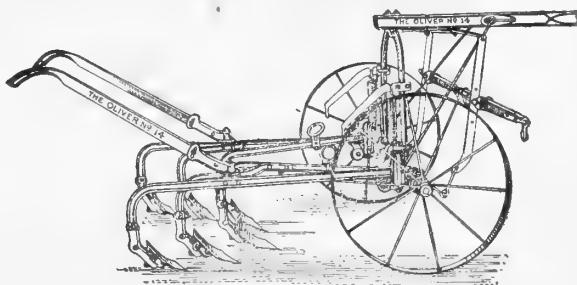
GRITCO FLAT TOOTH WEEDE

WITH RIDING ATTACHMENT



12-ft. Gritco Weeder, with Riding Attachment.. \$80.00 Our Special Price. \$50.00

OLIVER WALKING CULTIVATOR No. 14



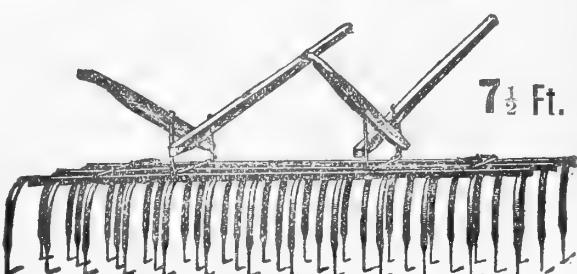
There are many walking cultivators on the market whose combined merits would, if embodied in a single machine, no doubt result in a fine implement, but it is left for the Oliver No. 14 to present the majority of existing advantages besides offering some entirely new features. The axles are continuous, and by virtue of the solid clamp and solid brace fastening below, the Oliver is the most rigid and strongest machine of the kind ever offered. Compare this construction with others where braces terminate in loose eyes around the axle, or when upper ends of axles are held in loose sockets with set screws. The tongue is perfectly balanced, the wheels are strong, fitted with 2-inch tires and dust-proof hubs. The hitch is short, and this is the only cultivator with eveners behind the point on pole where arch braces fasten. The spring lift is adjustable up and down on the arches.

	List Price.	Our Special Price.
No. 14-C—6-Shovel Pin Hoe, wt. 280 lbs..	\$63.50	\$37.50
No. 14-L—8-Shovel Pin Hoe, wt. 264 lbs..	65.00	38.50

WEEDERS & ATTACHMENTS

By the use of Weeders much time and labor are saved and better crops grown. These weeders or shallow cultivators, as they are sometimes called, can be worked in dry or wet weather. They will not cut the roots of the crop, but cultivate just deep enough to retain the moisture where it is most needed. Use a weeder early and often, and you will be surprised at the results. It is a good policy to use the weeder after a heavy rain, when the ground has been beaten down, to avoid the forming of a hard crust which retards the growth and development of the crops.

GRITCO FLAT TOOTH WEEDE



7 1/2-foot Gritco Flat-Tooth Weeder...	\$24.00	Our Special Price. \$15.00
Extra teeth .....	.42	.30

Lord Baltimore Cultivator and Horse Hoe—FIG. 20

Equipped with our latest improved Hollow Pressed Steel Standards, Lever Expander and Outside Handle Braces. Extra high Steel Frame. Standards are interchangeable, there being no "right" nor "left" as in the solid standards in general use.



FIG. 21.

Clevis Hooks
for 5-tooth Cul-
tivators. List,
30c. Our Spe-
cial Price, 20c.



Lord Baltimore Cultivator and Horse Hoe

FIG. 21

The same tool as shown in Fig. 20, with the addition of the Lever Wheel Attachment and Rear Wheel Depth Regulator. Weight, 80 lbs. List Price, \$21.00 Our Special Price, \$13.25.

7-TOOTH CULTIVATOR

FIG. 24

List Retail

Price. Price.

7-Tooth, Plain	\$14.50	\$9.25
With Channel Frame and Lever	15.50	10.00
Same with Lever and Wheel	17.00	11.00

THE IRON AGE CULTIVATOR

No. 1005

List Retail

Price. Price.

Iron Age Cultivator, plain, with Clamp Expander	\$12.00	\$7.50
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BALTIMORE COMBINED HARROW AND CULTIVATOR

The teeth have four positions—first, position shown in cut, in which case can be used for working very close to small plants. Thoroughly pulverizes, throws no dirt on plants. Second position, as a straight tooth harrow. Third position, teeth can be arranged as a smooth harrow, with sharp points down, in order to cut and level surface. Fourth position, teeth can be set with sheared end down, being less liable to injure young plants.

Can be contracted to 9 inches and ex-
panded to 21 inches. Weight, 51 pounds.

14-TOOTH

FOR CULTIVATOR STEELS

SEE PAGE 165.

The Horse Hoe Standards differ from the other three, and take either the regular Cultivator Teeth or Hilling Attachments. They have two holes to accommodate Hillers, and may be turned all the way around, thus giving any sideway angle desired. Hillers are reversible, and may be used with either point or rounded edge foremost. Weight, 60 lbs.

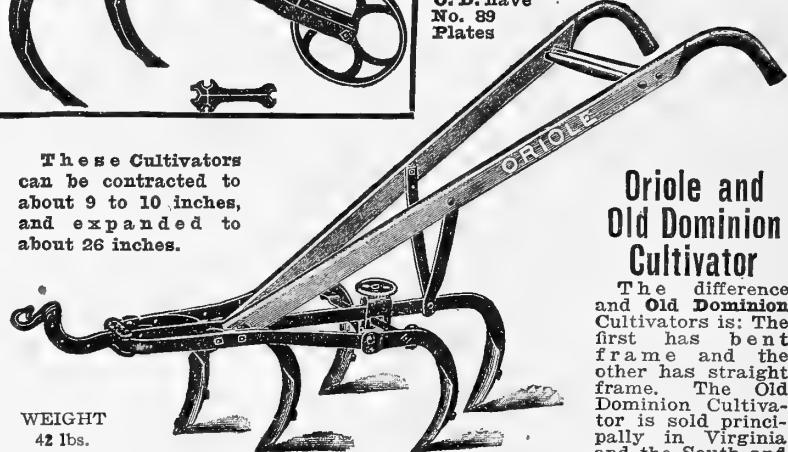
With Lever, List Price, \$16.50. Our Special Price, \$10.00.

With Lever and Wheel, List Price, \$18.00. Our Special Price, \$11.00.



LORD BALTIMORE CULTIVATOR—Fig. 22	List Price.	Retail Price.
Cultivator and Horse Hoe, no Lever	\$15.20	\$9.50
Cultivator, Plain	14.00	9.00

Oriole and
O. D. have
No. 89
Plates



These Cultivators
can be contracted to
about 9 to 10 inches,
and expanded to
about 26 inches.

WEIGHT
42 lbs.

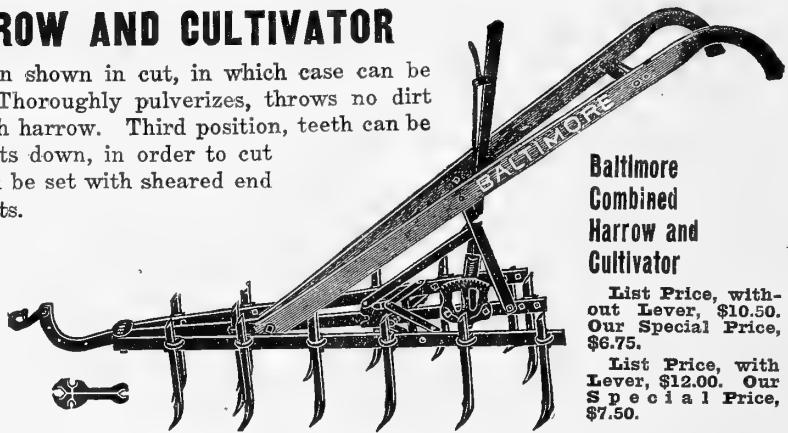
wherever sold it becomes a favorite. Both have No. 89 plates.

Cultivator, plain	List Price.	Special Price.
Cultivator with Lever	\$ 9.00	\$ 6.00
Horse Hoe Attachments, complete, per set of three pieces	10.50	7.00
Wheels for Cultivators, each	4.20	2.50
	1.50	1.00

Oriole and Old Dominion Cultivator

The difference
and Old Dominion
Cultivators is: The
first has bent
frame and the
other has straight
frame. The Old
Dominion Cultivator
is sold principally
in Virginia and the South, and

	List Price.	Special Price.
Cultivator, plain	\$ 9.00	\$ 6.00
Cultivator with Lever	10.50	7.00
Horse Hoe Attachments, complete, per set of three pieces	4.20	2.50
Wheels for Cultivators, each	1.50	1.00

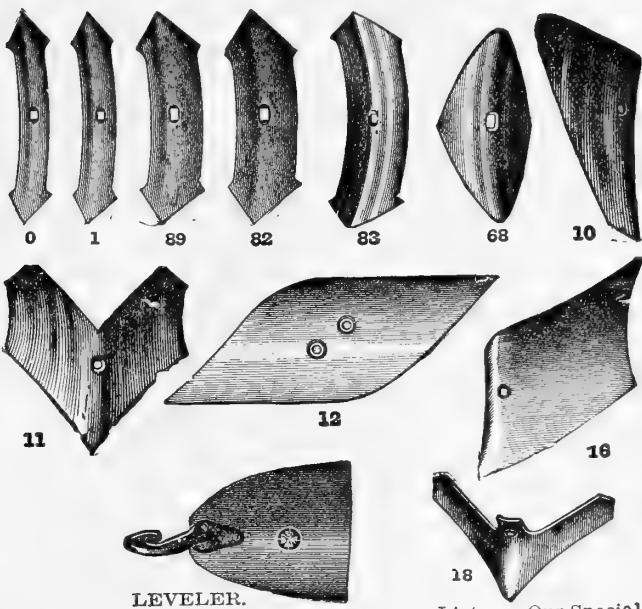


Baltimore Combined Harrow and Cultivator

List Price, with-
out Lever, \$10.50.
Our Special Price,
\$6.75.

List Price, with
Lever, \$12.00. Our
Special Price, \$7.50.

Cultivator and Horse Shoe Steels



	List Price.	Our Special Price.
No. 0—1 1/4-in. Diamond Point Steel.	\$19.00 per 100	\$0.12 ea.
No. 1—2-in. Diamond Point Steel.	21.00 per 100	.13 ea.
No. 89—2 1/2-in. Diamond Point Steel.	22.00 per 100	.14 ea.
No. 82—3-in. Diamond Point Steel.	24.00 per 100	.15 ea.
No. 83—3 1/2-in. Diamond Point Steel.	26.00 per 100	.17 ea.
No. 84—4-in. Diamond Point Steel.	28.00 per 100	.18 ea.
No. 68—Oval or Jersey Point Steel..	28.00 per 100	.18 ea.
No. 10—Turn Shovel, right or left...	.40 each	.25 ea.
No. 16—Turn Shovel .....	.42 each	.27 ea.
No. 11—6-in. Sweep, about 7-in. across.	.50 each	.31 ea.
No. 11—8-in. Sweep, about 11-in. across	.62 each	.40 ea.
No. 12—Horse Hoe, Steel only, without shank, R. & L.....	.60 each	.38 ea.

	List Price.	Our Special Price.
Horse Hoe, Steel, with Shank or Standard, per pair	\$4.00	\$2.50

	List Price.	Our Special Price.
Horse Hoe Attachments, complete, per set of three pieces	4.50	2.75

	List Price.	Our Special Price.
No. 18—8-in. Sweep, each.....	.57	.36
No. 18—10-in. Sweep, each.....	.60	.38
No. 18—12-in. Sweep, each.....	.75	.47
No. 18—15-in. Sweep, each.....	.95	.60

	List Price.	Our Special Price.
Wheels for Cultivator, each.....	1.50	1.00

	List Price.	Our Special Price.
Levelers for Cultivators, each.....	2.00	1.25

	List Price.	Our Special Price.
Cultivator Plate Bolts, 1 1/2, per 100.....	6.00	.05

	List Price.	Our Special Price.
Cultivator Frame Bolts, per 100.....	6.00	.05

	List Price.	Our Special Price.
Wheel Cultivator Clamps, each.....	.75	.47

	List Price.	Our Special Price.
Set Screw Cultivator Clamps, each.....	.70	.44

	List Price.	Our Special Price.
Teeth for Baltimore Combined Harrow and Cultivator, Diamond Shaped Steel, each.....	.25	.18

	List Price.	Our Special Price.
Cultivator Handles, finished with rod and round, per pair.....	2.50	1.60

All of the above goods are of best steels and highly polished.

Steels for Hench and Drumgold's Riding Cultivators and Champion Walking Cultivators

	List Price.	Our Special Price.
1 1/4-inch Plain Shovel, O. S., without revolving backs	\$0.40	\$0.25

	List Price.	Our Special Price.
2 1/2-inch Plain Shovel, O. S., without revolving backs .....	.45	.29

	List Price.	Our Special Price.
3-in. Plain Shovel, O. S., without revolving backs .....	.56	.35

	List Price.	Our Special Price.
2 1/2-inch Plain Shovel, N. S., with revolving backs	1.00	.65

	List Price.	Our Special Price.
3-in. Plain Shovel, N. S., with revolving backs	1.10	.70

	List Price.	Our Special Price.
3 1/2-inch Plain Shovel, N. S., with revolving backs	1.20	.75

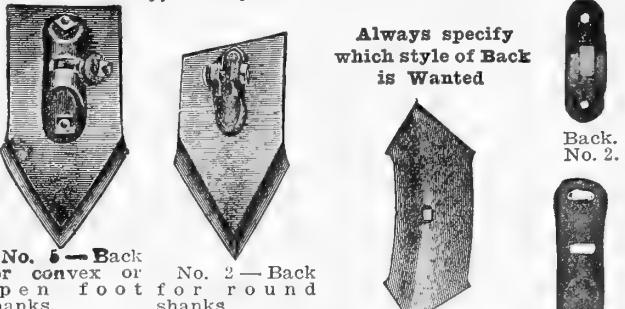
Steels for Iron Age Riding Cultivators

	List Price.	Our Special Price.
No. 90—1 1/4 inches wide, each.....	\$0.33	.21

	List Price.	Our Special Price.
No. 91—2 1/2 inches wide, each.....	.38	.22

Steels for Riding Cultivators

With and
Without Backs
For Round and Open Foot Shanks. For Brown, Brown-
Manly, Buckeye and Deere Cultivators



Always specify
which style of Back
is Wanted

No. 5 — Back for convex or open foot shanks.
No. 2 — Back for round shanks.

The steel shown with No. 5 back is 5x11 2 back is 5x11 straight top. This cut shows 3x10 reversible steel.

In ordering 5x11-inch Steels in less than sets of four, always specify whether wanted with straight top or flared top, and right or left hand.

WITH BACKS.

	List Price.	Our Special Price.
1 1/2x10 inches, Reversible.	\$.80	\$.50
2x10 inches, Reversible.	.90	.60
2 1/2x10 inches, Reversible.	1.00	.65
3x10 inches, Reversible.	1.05	.68
3 1/2x10 inches, Reversible.	1.15	.75
5x11 inches	1.50	1.00
1 1/2x10 inches, Bull Tongues.	1.10	.70
2x10 inches, Bull Tongues.	1.15	.73
2 1/2x10 inches, Bull Tongues.	1.20	.75

WITHOUT BACKS, WITH ONE BOLT HOLE.

	List Price.	Our Special Price.
1 1/2x10 inches, Reversible.	\$.40	\$.30
2x10 inches, Reversible.	.44	.32
2 1/2x10 inches, Reversible.	.50	.35
3x10 inches, Reversible.	.55	.38
3 1/2x10 inches, Reversible.	.60	.40
5x11 inches	1.10	.70

BLANKS NOT BORED.

	List Price.	Our Special Price.
5x11 inches	\$1.05	\$0.66
1 1/2x10 inches, Bull Tongues.	.65	.40
2x10 inches, Bull Tongues.	.70	.45
2 1/2x10 inches, Bull Tongues.	.80	.50

Spike Harrow Teeth

Our Special Price, per pound.

List Price, per pound.



Special Price in Quantity.

STEELS

For Single and Double Shovel Plows.

SIZES SHOVEL PLOW STEELS

DRAG BLADES.

4" x 7", 4 1/2" x 7",
5" x 8".

D. S. BLADES.

5", 5 1/2", 6", 6 1/2",
7" wide.
8", 10" and 11"
long.

S. S. BLADES.

All sizes from
8" to 18" wide by
11" to 16" long.
In 1 and 2 hole.

CALF TONGUES—1 1/2", 1 3/4", 2" wide by 8" long.

BULL TONGUES—1 3/4", 2", and 3" wide by 11" long.
Above can be furnished in 1 or 2 hole.

Full and complete line of polished steels for Single and Double Shovel Plows made in both one and two-hole styles. Genuine Malta Double or Single Shovel Plow Steels, per pound

Farmers' Favorite Triple Shovel Plow Steels, per pound

Farmers' Favorite and Double Shovel Plow Steels, per pound

Bolts for Shovel Plow Blades, each

Shovel Plow Fender

SHOVEL PLOW HANDLES

Finished, for Single or Double Shovel Plows, complete
with round and rod, per set

1.60

Finished without round and rod, per pair

1.50

Finished and bored, right and left, each

.80



SHOVEL PLOWS

Farmers' Favorite, single-shovel Plow \$4.25
Farmers' Favorite, double shovel Plow 4.75

The cost of these goods is not so much in the finish as in the construction and material, these being the principal requisites in an implement.

Triple-shovel Plows, regular \$6.00
Extra Heavy three-shovel Plows 6.25



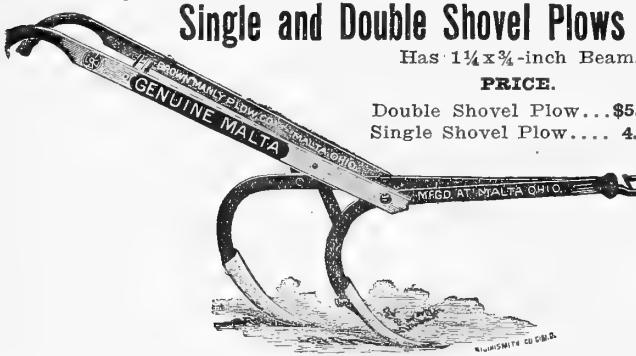
For shovel plow steels see page 165.

The Original and Genuine "Malta" Iron Beam Single and Double Shovel Plows

Has $1\frac{1}{4} \times \frac{3}{4}$ -inch Beam.

PRICE.

Double Shovel Plow... \$5.65
Single Shovel Plow.... 4.45

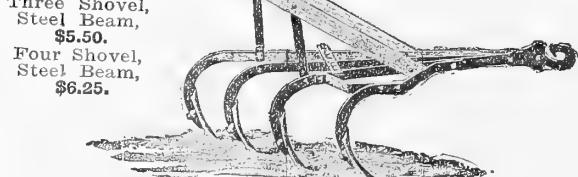


Gritco Steel Beam Four Shovel Plows

PRICE, \$6.25.

Both the Steel Beam and Wood Beam four shovel Plows are special favorites in the South, particularly in North Carolina and Virginia.

Three Shovel, Steel Beam, \$5.50.
Four Shovel, Steel Beam, \$6.25.



Gritco Wood Beam Four Shovel Plows

PRICE, \$6.25.

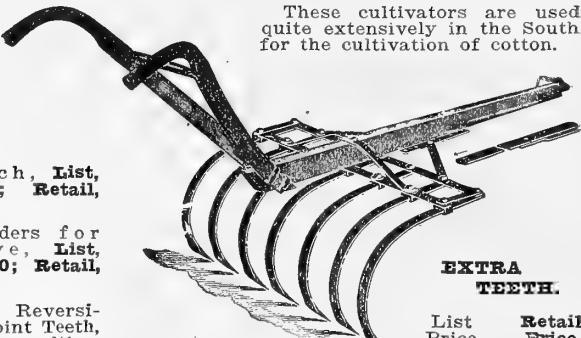
Both Wood and Steel Beam are furnished with reversible plates.

Four Nut Shovel Plow Spreader Bolts

For Beams and Handles, each..... 60c.
Shovel Plow Clevis, 50c.

Gritco Wood Beam Diverse Cultivators Without Levers

These cultivators are used quite extensively in the South for the cultivation of cotton.



Each, List, \$14.00; Retail, \$8.75.

Fenders for above, List, \$2.00; Retail, \$1.25.

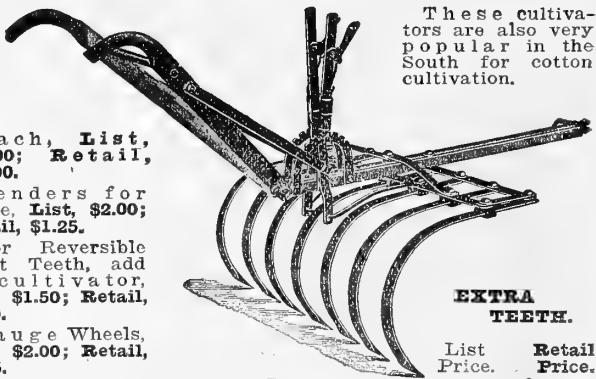
For Reversible Point Teeth, add per cultivator. List, \$1.50; Retail, \$1.00.

EXTRA TEETH.

	List Price.	Retail Price.
Plain	\$1.00	75c.
With Rev. Pts.,	1.30	85c.

Gritco Steel Beam Diverse Cultivators With Levers

These cultivators are also very popular in the South for cotton cultivation.



Each, List, \$16.00; Retail, \$10.00.

Fenders for above, List, \$2.00; Retail, \$1.25.

For Reversible Point Teeth, add per cultivator. List, \$1.50; Retail, \$1.00.

Gauge Wheels, List, \$2.00; Retail, \$1.25.

EXTRA TEETH.

	List Price.	Retail Price.
Plain	\$100.75	130.85
With Rev. Pts.,		

SAXMAYER VEGETABLE TYER

The machine somewhat resembles and is but little larger than a sewing machine, requires less power to run, and may be operated by treadle or driven by belt with a motor or gas engine. It may be kept in constant motion and automatically ties and releases each bundle only when it is placed in position for tying. It works so easily that a child can do more work with it than a number of grown persons could do by hand in the same time. The operator sits comfortably at the machine and does his work in perfect ease.

The framework and table are both made of metal of substantial and ornamental design. The tying mechanism is of bronze, which insures long life and will not rust.

Try it and see for yourself. It will pay for itself in three to six weeks.

PRICE, \$90.00

F. O. B. Factory.



No. 11,
Steel Frame.
Price, \$55.00.



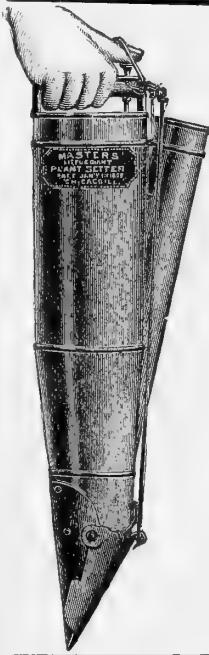
GRITCO CORN HARVESTER

Automatic Knife Guard gives absolute protection to operators. Simple, thoroughly effective, never fails to work instantly. Mechanism extremely simple. Front lever is connected with a plate of steel under the wing which projects beyond all parts of knife. While at work operator holds down with his foot the lever which draws the guard in.

The Wings are independent of each other; quickly raised to pass obstructions. Knives are best grade tempered steel, making an upward shear cut.

The Frame is 28 inches wide; extreme width at widest point of knives, 63 inches; adapting machine to widest or narrowest rows. Frame can be raised or lowered at both front and rear.

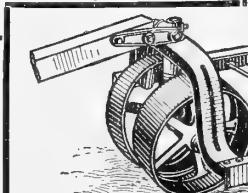
Safety Shafts turn freely in any direction and provided with a stop which prevents horse from turning further than necessary. Seats are independent, each one being quickly raised or lowered.



MASTER'S RAPID PLANT SETTER

All kinds of Plants, such as Cabbage, Tobacco, Tomatoes, Cauliflower, Strawberries, Sweet Potatoes, Sugar Beets, etc.. The only Hand Mechanical Plant Setter on the market; is built on scientific principles throughout. Its conical jaws are made of heavy sheet steel and the main body or water reservoir and plant tube of heavy tinned plate. The water valve is of brass with rubber packing. The valve rod and trip spring are of steel wire; thumb button and other fittings are also of brass. The machine is well put together with rivets and solder and should last for years.

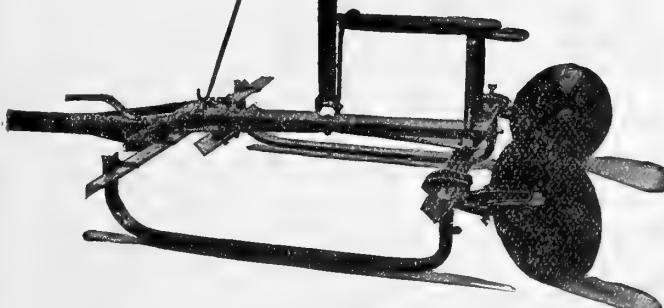
Price, each, \$6.00.



A Transplanter of unusual merit, that will set the plants right. Adjustable to every condition. Write for special catalog.

PRICE

GRITCO-B Furrower and Marker



Strong, light and durable. A half-dozen tools in one. Runs steadily and cannot be choked. Adjustable throughout. Broad runners of wrought T-angle iron with rib to prevent sliding on side hill. Revolving discs or furrows, with chilled hub and steel axle.

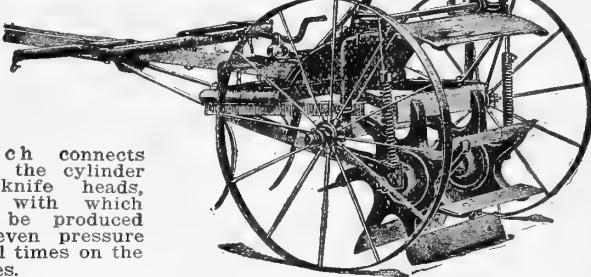
Price, \$30.00.

Neck Yoke and Whiffle Trees, \$4.00.

GRITCO STALK CUTTER

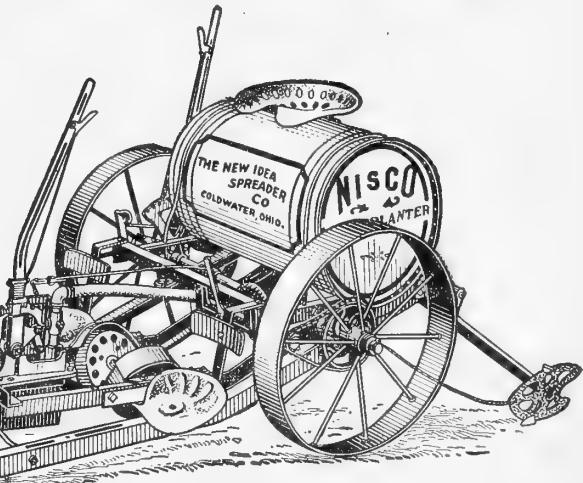
7-Blade, single row. \$62.50
9-Blade, single row. 66.00

Practically an all-steel frame machine, making it neat of construction and giving it ample strength. The wheels are all steel, with removable box and 2-inch tire. The lever is within easy reach of the operator and is connected with pressure spring

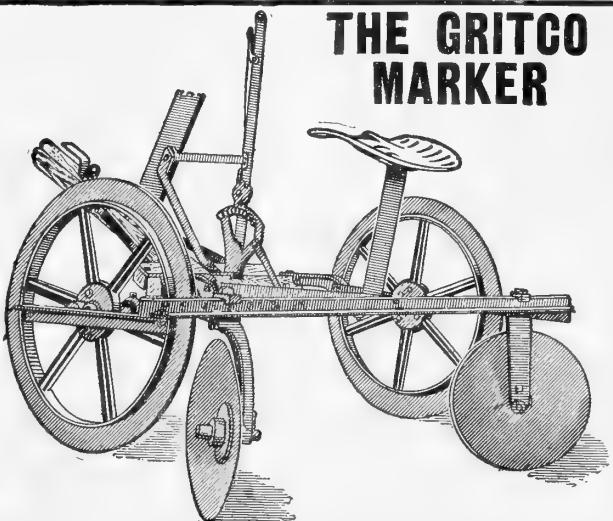


which connects with the cylinder or knife heads, and with which can be produced an even pressure at all times on the knives.

NISCO TRANSPLANTER



THE GRITCO MARKER



The Marker will open rows from 2 to 6½ feet. By the use of the lever they can be opened any depth desired.

The Marker is light draft and easily controlled. It can be used for laying of rows, listing or covering. The Marker is equipped with marker pole, doubletrees and neckyoke.

PRICE

CUTAWAY DOUBLE ACTION HARROW REGULAR

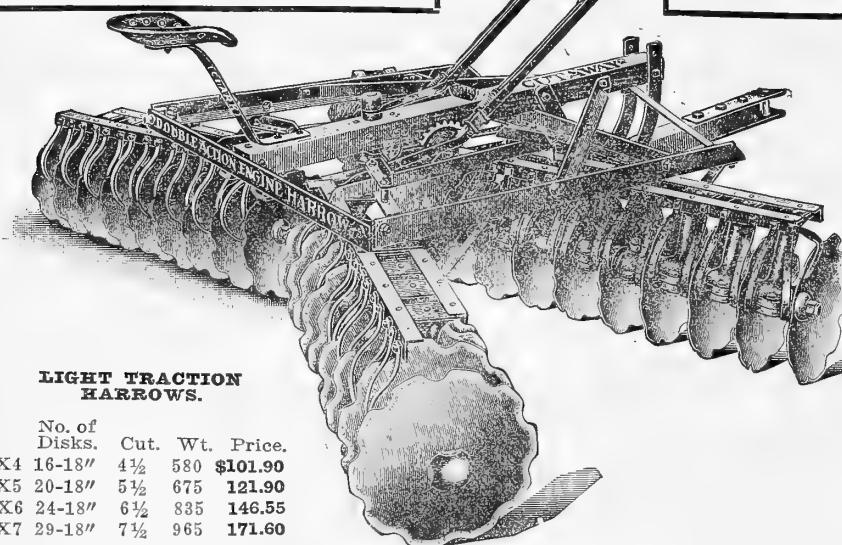
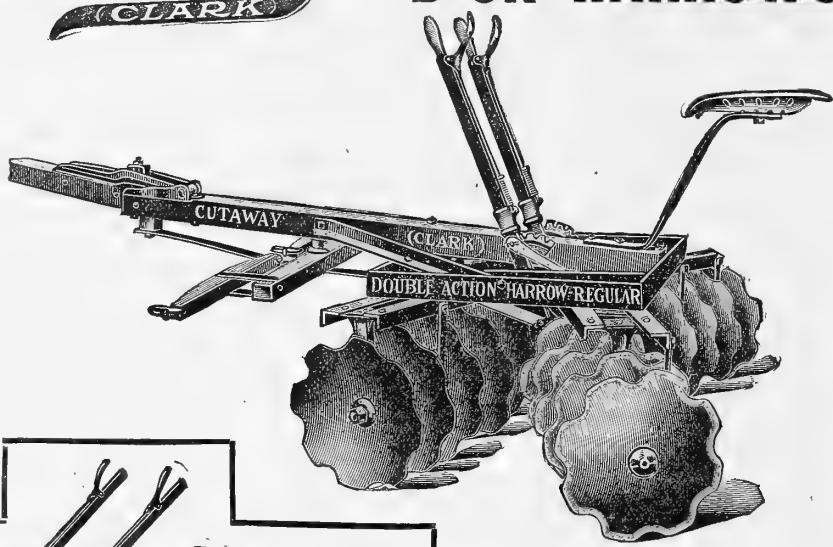
The great efficiency of Cutaway (Clark) Double Action Harrows is due more to the rigid main frame than to any other feature. All four gangs are attached to this one rigid main frame. Observe their positions in relation to one another. The rear disks cannot slue from side to side, following the course of least resistance, but cut just midway between the fore disks. Every particle of soil to the full depth to which the disks run is thoroughly stirred. Note how compactly the machine is built; how uniformly the weight is distributed; how excessively strong it is throughout. The **Cutaway (Clark)** is the original double action harrow. Its popularity spread because of its unequalled efficiency, and its efficiency is mostly due to the rigid main frame. There are substitutes, but at best they are only substitutes. Whenever there is any flexibility between the gangs the real efficiency is lost. The rigid main frame is vital.

Diam.

No. of Disks.	No. of Disks.	Width	of cut.	Hitch.	Wt.	Price.
A-3	12	16"	3' 6"	4-h	345	\$63.80
A-4	16	16"	4' 6"	4-h	435	85.25
A-5	20	16"	5' 6"	4-h	510	97.50
A-6	24	16"	6' 6"	4-h	610	106.15

Cutaway
(CLARK)

DISK HARROWS



LIGHT TRACTION HARROWS.

No. of Disks.	Cut.	Wt.	Price.
X4	16-18"	4 1/2	580 \$101.90
X5	20-18"	5 1/2	675 121.90
X6	24-18"	6 1/2	835 146.55
X7	29-18"	7 1/2	965 171.60

No. of Disks.	Diam.	Width	No. of Disks.	Diam.	Width
*X-6	25	18" - 7'	X-7	29	18" - 8'
X-7	29	18" - 8'	X-8	37	18" - 10' 6"
X-9	37	18" - 10' 6"	X-10	45	18" - 12' 6"
X-11	45	18" - 12' 6"			

*"X" means that the disks are 18 inches in diameter; "B," 20.

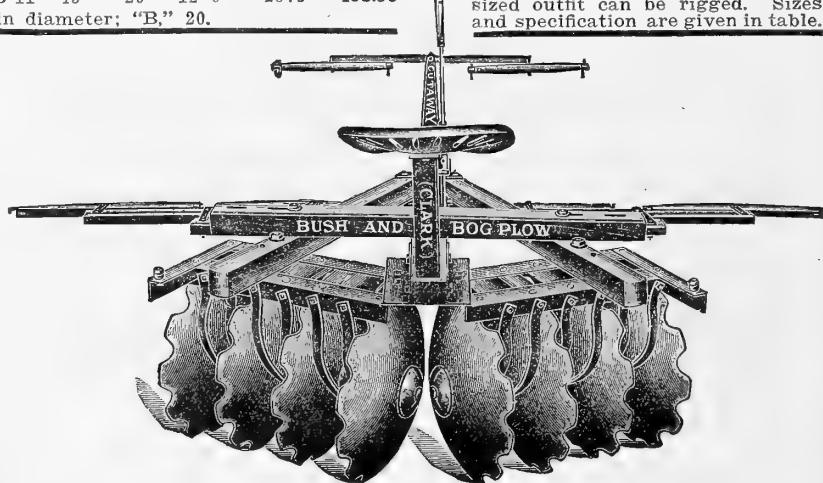
CUTAWAY BUSH AND BOG PLOW

On many farms are fields lying out as waste, simply because their owners do not know how cheaply and quickly they may be put under cultivation. The old, expensive, hand-labor method is no longer necessary. Much work that could be done heretofore only by slow, tedious and hard labor with an axe, bush-knife and shovel can now be done with the **Cutaway (Clark)** Bush and Bog Plow.

As is shown in the illustration opposite, this machine is a big, heavy disk plow or harrow. It weighs 660 pounds. It is equipped with extra heavy 24-inch disks of standard **Cutaway (Clark)** quality, forged sharp. The bearings are dust-proof, oil-soaked hardwood, perfectly lubricated.

No. of Disks.	Diam.	Width	No. of Disks.	Disk.	Cut.	Hitch.	Wt.	Price.
8	24 in.	5 ft.	4 H.	680	\$120.75			
8	20 in.	4 1/2 ft.	2 H.	440	79.85			

Additional for above, fitted with fore truck, less long tongue and neck yoke, \$7.75.



CUTAWAY DOUBLE ACTION ENGINE HARROW

The mechanical detail of this machine is shown in the illustration opposite. All four gangs are attached to the one rigid main frame. This construction is all-important—vital. Only by the rigid main frame can a double action engine harrow be made to do such work as to justify its existence. The gangs are held rigidly. They cannot shift and slue about, but work in correct relation to one another at all times. The fore disks throw the soil out, and the rear disks cut just midway between the fore disks and throw the soil back, so that all is thoroughly stirred and left level. In the center is an extra disk which cuts out the middle. Observe in the illustration opposite how excessively strong this harrow is built throughout. The frame is of heavy angle iron, stoutly braced with angles. Draft rods extend between the frame and axles, so that the strain from the pull is uniformly distributed. The hitch is adjustable to any engine, and a perfect line of draft can always be maintained. The gangs are easily set at any angle desired. There is a size for almost every engine, and by hitching in multiples practically any sized outfit can be rigged. Sizes and specification are given in table.

Cutaway
CLARK

DISK HARROW

Cutaway Single Action Harrow-Regular

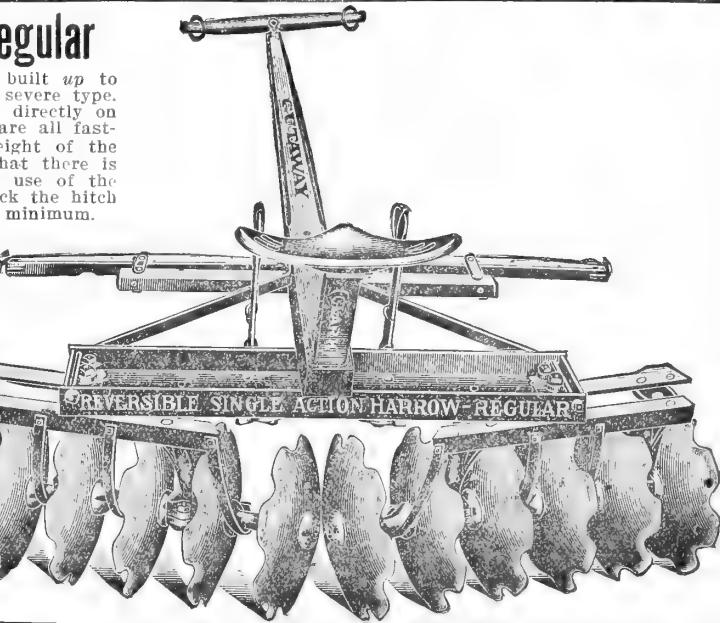
The CUTAWAY (CLARK) Single Action Harrow was built up to a standard measured by actual field conditions of the most severe type. Observe in the illustrations opposite that the head is built directly on top of the gangs. Note the tongue, seat, braces and levers are all fastened to it, thereby making the disks carry the entire weight of the machine. This construction gives such a perfect balance that there is practically no weight on the horses' necks and makes the use of the tongue truck optional with the user. Without a tongue truck the hitch is placed back close to the machine and the draft is the very minimum.

The CUTAWAY (CLARK) Single Action Harrow is reversible; that is, the gangs can be swung end for end, so that the soil may be thrown either out or in. To reverse, it is only necessary to pull the cotter pins that hold the lever links, drop the links, swing the gangs around and reattach links.

Instead of having a heavy truss construction forward of the gangs with the line of draft at a considerable angle upward, the CUTAWAY (CLARK) Single Action Harrow is built on top of the gangs and the line of draft is practically horizontal. Instead of power being wasted in lifting the harrow out of the ground, it is all utilized in pulling the harrow in a horizontal direction and allows the machine to "take the ground."

Diam.

No. of Disks.	Disk.	Width	of Cut.	Hitch.	Wgt.	Price.
A-4	8	16-in.	4-ft.	2-h.	250	\$46.15
A-5	10	16-in.	5-ft.	3-h.	275	53.80
A-6	12	16-in.	6-ft.	4-h.	305	60.55
A-7	14	16-in.	7-ft.	4-h.	435	70.25

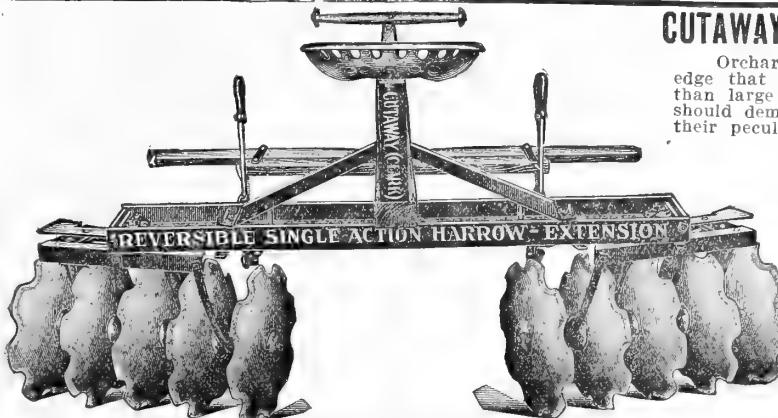


CUTAWAY SINGLE ACTION HARROW-EXTENSION

Orchard tillage should be intensive. It is common knowledge that no crop responds to thorough tillage more profitably than large fruits. It is, therefore, natural that the orchardists should demand CUTAWAY (CLARK) harrows especially built for their peculiar needs.

The CUTAWAY (CLARK) Single Action Harrow-Extension is the same machine as the CUTAWAY (CLARK) Single Action Harrow-Regular, except that the head is longer so as to spread the gangs out beyond the team and under the branches of the trees. The head is built on top of the gangs. To it are attached the tongue, braces, seat and levers. Thus the entire weight of the machine is on top of the gangs and is carried entirely by the disks.

No. of Disks.	Disk.	Width	of Cut.	Hitch.	Wgt.	Price.
A-4	8	16-in.	6-ft.	2-h.	265	\$48.70
A-5	10	16-in.	7-ft.	3-h.	295	56.40
A-6	12	16-in.	8-ft.	4-h.	320	64.95

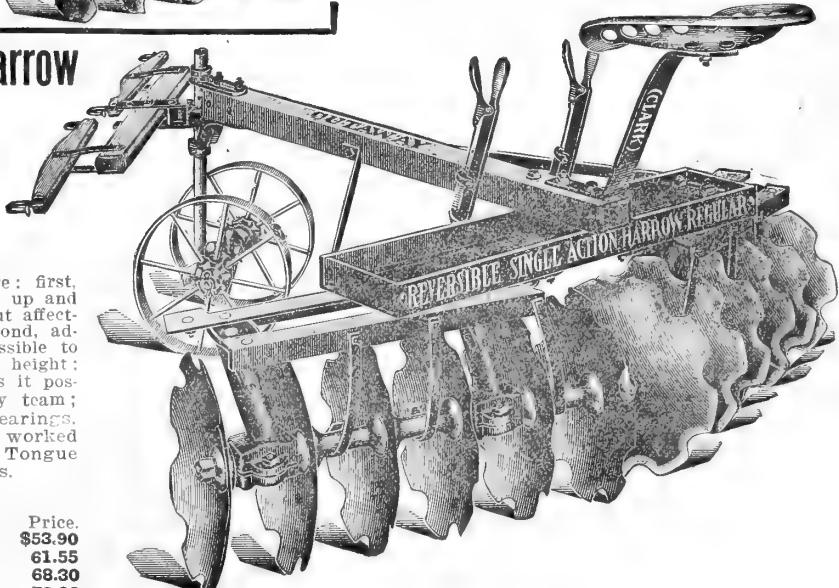


Cutaway Single Action Harrow with Tongue Truck

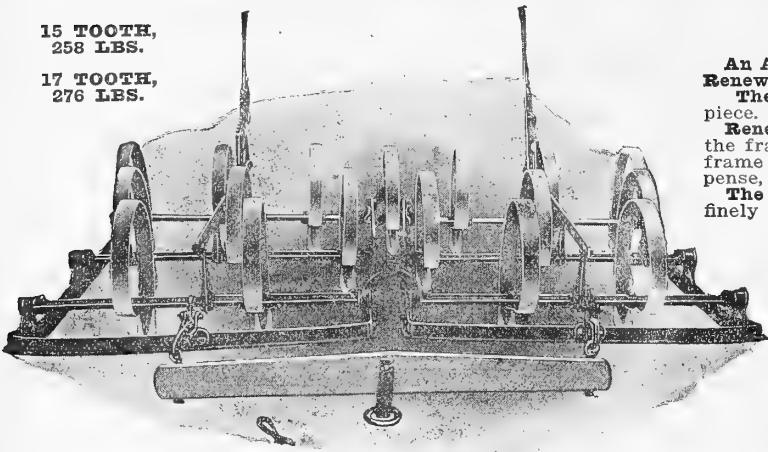
This harrow is the same as the Cutaway Single Acting Harrow, except it is provided with a tongue truck, and in this instance the harrow is furnished without long tongue and neck yoke.

Four essentials of a good tongue truck are: first, an axle joint, which allows either wheel to rise up and run over clods, stones and other obstacles without affecting the even, regular draft of the harrow; second, adjustable tongue attachment, which makes it possible to attach the tongue truck to a harrow of any height; third, adjustable hitch attachment, which makes it possible to set the hitch to suit the size of any team; fourth, dust-proof, oil-soaked hardwood bearings. Each of these essentials are found perfectly worked out in the CUTAWAY (CLARK) Harrow Tongue Truck. The prices are for complete harrows.

No. of Disks.	Disk.	Width	of Cut.	Hitch.	Wgt.	Price.
A-4	8	16-in.	4-ft.	2-h.	250	\$53.90
A-5	10	16-in.	5-ft.	3-h.	275	61.55
A-6	12	16-in.	6-ft.	4-h.	305	68.30
A-7	14	16-in.	7-ft.	4-h.	435	78.00



The Gritco Runner Spring Tooth Lever Harrow



15 TOOTH,
258 LBS.

17 TOOTH,
276 LBS.

15 TOOTH, \$28.25
17 TOOTH, \$30.50

An All-Steel, Low-Down Lever Spring Tooth Harrow with Renewable Steel Runners. 15 or 17 Teeth. Two Sections. The Frame is made of special "T" Steel forged in one piece.

Renewable Steel Shoes are bolted onto the underside of the frame to take the wear, so that no wear comes on the frame itself. These shoes can be renewed at a slight expense, making the harrow practically indestructible.

The Teeth are made from the best Open Hearth Steel, finely tempered in oil and fully warranted, and can be instantly raised or lowered by means of the levers. As the point of the tooth wears, same can be lowered by adjustment on the tooth bars.

The Shape of the harrow is correct to make it run steadily and smoothly and permit the teeth always to work at a uniform depth; teeth can be easily raised or lowered, to transport from field.

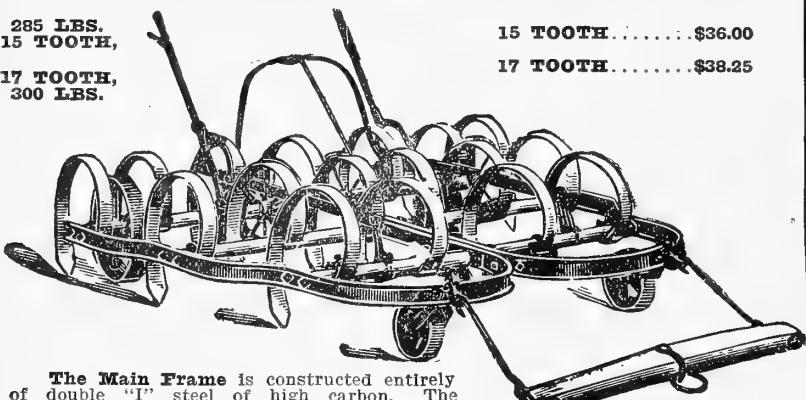
Construction is simple. It is durable and does not require a man and wrench to keep it in working order.

Gritco Lever Wheel Harrow

285 LBS.
15 TOOTH,

17 TOOTH,
300 LBS.

15 TOOTH.....\$36.00
17 TOOTH.....\$38.25



The Main Frame is constructed entirely of double "I" steel of high carbon. The frame surrounds the teeth, and there are no projecting parts to engage obstruction. Cross Bars are $1\frac{1}{4}$ -inch structural tubing, and have no holes drilled through them; compression clamps instead of bolts being used for fastenings.

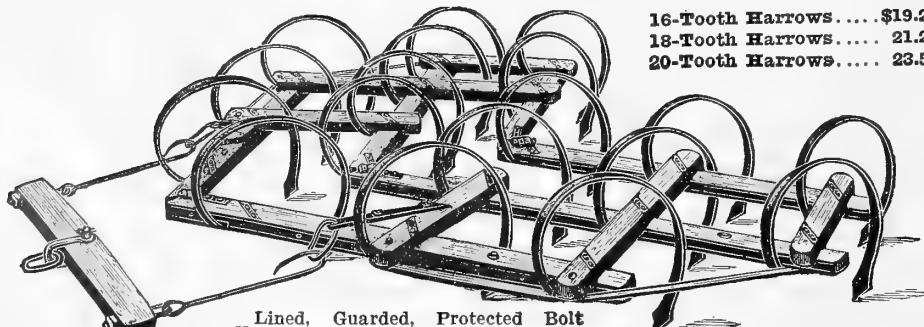
The Arrangement of Teeth. The front bar carries four, middle bar six, and rear bar seven teeth in the 17-tooth machine. Best arrangement possible.

Teeth are of regulation size, $1\frac{1}{4}$ inches wide, $\frac{1}{4}$ -inch thick, are made of best quality of spring steel and fully guaranteed against imperfection.

Tooth Holders.—By our method of constructing tooth holders, or clamps, teeth may be readily adjusted and kept in line.

The Carrying Wheels are constructed with broad rims and the bearing surfaces are chilled. The Lever Racks are strong and durable, being made of malleable iron. It is painted with a heavy coat of green paint.

WOOD FRAME HARROW, STEEL LINED



Lined, Guarded, Protected Bolt Heads, Perfect Tooth Seat. The best of "Wood Frame" Harrows.

16-Tooth Harrows....\$19.25
18-Tooth Harrows....21.25
20-Tooth Harrows....23.50

Spring Harrow Teeth



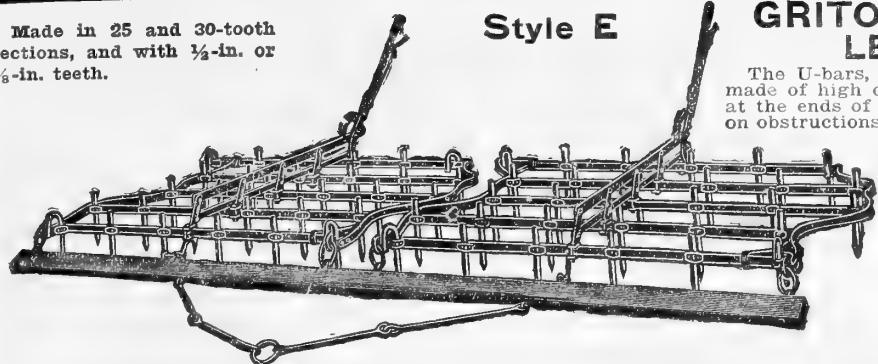
For All Leading Harrows,
Price, 60c. each.

Teeth with Reversible Points 35c.

When taken in full sets, special price

Made in 25 and 30-tooth sections, and with $\frac{1}{2}$ -in. or $\frac{5}{8}$ -in. teeth.

Style E



GRITCO GUARDED FRAME LEVER HARROW

The U-bars, channels, oscillating bars and teeth are made of high carbon steel. The channels, being placed at the ends of the U-bars, prevent them from catching on obstructions, as is frequently the case with the open-end harrow. Strong and well made, but carrying no superfluous weight. Corner braces, oscillating castings and lever castings of malleable iron.

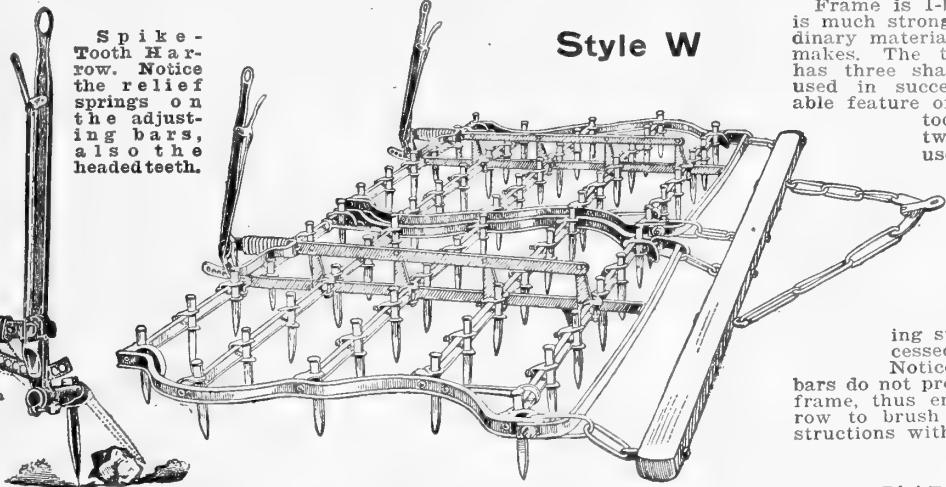
	List Price.	Our Price.
50-Tooth Harrow, $\frac{1}{2}$ -inch Teeth;	\$36.00	\$22.50
Weight, 190 lbs.		
50-Tooth Harrow, $\frac{5}{8}$ -inch Teeth;	\$38.00	23.75
Weight, 195 lbs.		
60-Tooth Harrow, $\frac{1}{2}$ -inch Teeth;	\$40.00	25.00
Weight, 210 lbs.		
60-Tooth Harrow, $\frac{5}{8}$ -inch Teeth;	\$42.00	26.25
Weight, 215 lbs.		

GRITCO GUARDED FRAME HARROW WITH RELIEF SPRINGS

This shows how the relief spring allows the tooth to yield to obstructions.

Spike-Tooth Harrow. Notice the relief springs on the adjusting bars, also the headed teeth.

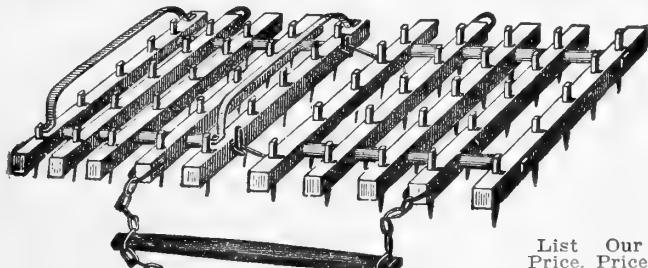
Dotted line showing action of spring in passing an obstruction.



Style W

Frame is I-beam, steel, and is much stronger than the ordinary material used on other makes. The triangular tooth has three sharp edges to be used in succession. A valuable feature of the triangular tooth is that the two edges not in use are sharpened by contact with the soil. Tooth-holder is simply perfect. It surrounds both the tooth and the bar, the pressure being supplied by a recessed nut and bolt. Notice that the tooth bars do not project beyond the frame, thus enabling the harrow to brush up against obstructions without injury.

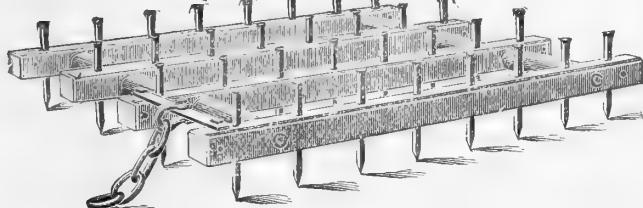
BALTIMORE DOUBLE HINGE HARROW



List Price. Our Price.
40-Tooth \$25.00 \$15.65
50-Tooth 28.00 17.50

This is a two-section, wood-frame, spike tooth Harrow. The runners, as seen in the cut, are intended to be used in carrying the Harrow from one field to another.

GARDENER'S HARROW

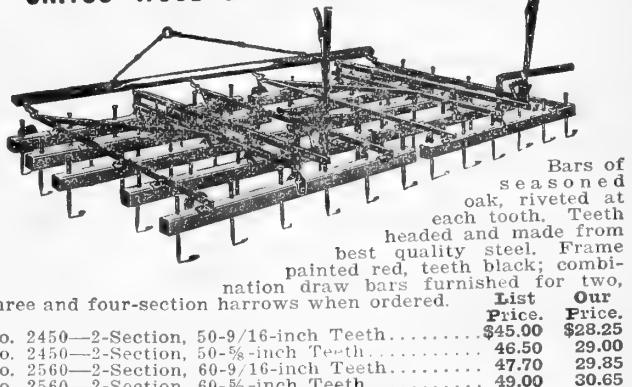


25-Tooth.

30-Tooth.

List Price. Our Price.
25-Tooth \$16.50 \$10.25
30-Tooth 18.00 11.25

GRITCO WOOD BAR LEVER HARROW



Bars of seasoned oak, riveted at each tooth. Teeth headed and made from best quality steel. Frame painted red, teeth black; combination draw bars furnished for two, three and four-section harrows when ordered.

No.	2-Section, 50-9/16-inch Teeth	3-Section, 50-5/8-inch Teeth	4-Section, 60-9/16-inch Teeth	5-Section, 60-5/8-inch Teeth	List Price.	Our Price.
2450	\$45.00	\$28.25
2450	46.50	29.00
2560	47.70	29.85
2560	49.00	30.65

THE BUTTS REVERSIBLE HARROW TOOTH

POINTS.

Can be used on all Spring Harrow Teeth. List Price, 45c. Price, each, 28c.

Osborne. List, 34c.; Our Price, 22c.

Deering. List, 34c.; Our Price, 22c.



SYRACUSE REVERSIBLE HARROW TOOTH POINTS.

List Price, 34c. Retail Price, 22c.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

OLIVER TRACTOR PLOWS

No. 78

The Oliver No. 78 Tractor Plow is the plow which has become so popular with the tractor manufacturers because of the quality work that it does.

Plowing is the most important and hardest work done on the farm. It is usually done at a time when adverse conditions are met with. In the Spring the horses are not in condition and in the Fall the ground is hard and dry. By means of the tractor plow all of this trouble is eliminated.

In most cases sod or stubble fields should be plowed in the Fall and allowed to lie fallow throughout the winter. This method puts the soil in good condition for the seed bed in early Spring. Because of the fact that plowing is hard, weather hot and other adverse conditions, a farmer who has no tractor plow will usually slight this important work.

Oliver Tractor Plows provide a means of doing this work in a very easy and satisfactory manner and with a minimum amount of effort.

Oliver Tractor Plows are designed to do the same quality work that has made **Oliver** horse plows so famous. They are easy to operate, plow an even depth at the ends of the field and in all conditions will do the kind of work that the farmer wishes.

Good Work of Oliver Tractor Plows

Oliver Tractor Plows scour even under adverse conditions. They turn a smooth furrow, and provide a compact seed bed that is free from air spaces. A wide range of close adjustments enables the operator to turn a furrow of the exact depth desired. When opening the field the bottoms can be adjusted to turn a dead furrow no higher than the rest of the field.

The Oliver No. 78 Tractor Plow is a power lift plow, having features which are found only in this plow. The No. 78 can be changed from a two to a three-bottom plow easily and quickly. When plowing conditions are hard and the tractor power limited this plow can be used with two bottoms. Under favorable conditions the third bottom can be added and maximum results obtained from the available horse power.

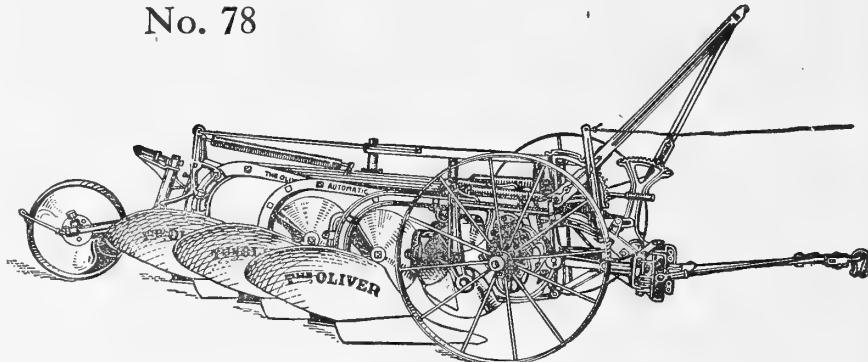
The levers of Oliver tractor plows are within easy reach of the operator on the tractor seat. When used with a standard light tractor they make a perfect one-man outfit.

Even Depth Plowing

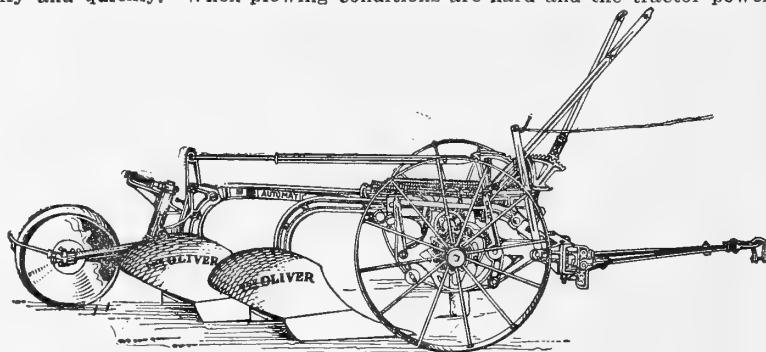
A stop device on the land wheel axle controls the plowing depth. By setting the lever at the depth desired the stop will keep the plow working at that depth at all times. The bottoms cannot penetrate deeper. This is of special advantage particularly when plowing for the sowing of Fall crops because the even depth assures a better condition of the seed bed. It is an advantage from the tractor standpoint because it keeps the plow from digging in where the soil is soft which would have a tendency to stall the tractor.

No. 78—Two-Bottom Plow \$173.75

No. 78—Three-Bottom Plow 224.75

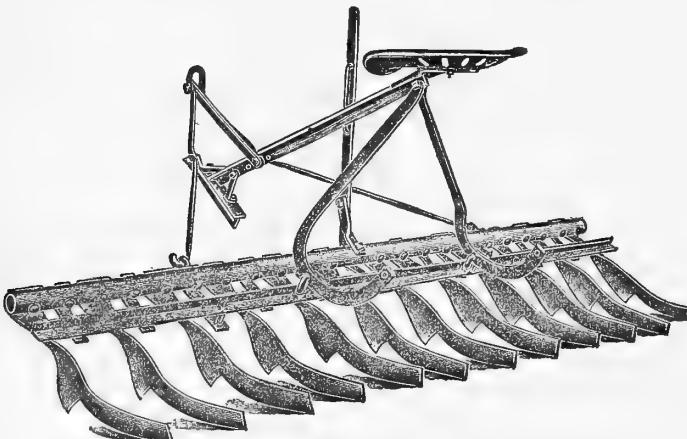


No. 78.—THREE-BOTTOM PLOW.



No. 78.—TWO-BOTTOM PLOW.

GRITCO PULVERIZING HARROW



This Pulverizing Harrow will pulverize either light or heavy soil, and do it better than other harrows. The action of the blades is to pulverize the soil and at the same time put the ground in a smooth condition, thus producing an ideal seed bed.

It produces the work of a disk and spike tooth harrow. It can be adjusted by the use of the lever to any desire depth, and will not drag out the filth, but cut it up underneath where it will rot and improve the soil.

It is the lightest weight and lightest draft harrow on the market.

No. 6—12-Blade Riding Harrow \$21.25

No. 5—8-Blade Riding and Walking Harrow 17.50

No. 3—6-Blade Walking Harrow 15.00

Coulters or Blades75

CUTAWAY EVER HANDY HARROW



The Cutaway (Clark) Ever Handy Harrow is primarily a one-horse machine, but has combination pole and shafts, and is easily converted from a one to a two-horse harrow or vice versa. A medium or even small horse will pull it, although for cultivating rowed crops two horses are used. It is reversible. To reverse, simply pull the cotter pins holding the two lever links, drop the links, swing the gangs around and reattach the lever links. This feature permits the user to throw the soil to or from the row, to throw up or tear down beds, or to cultivate to or from trees, vines, etc.

No.	of Disks.	Size of Disks.	Width of cut.	Weight.	Price.
6		16 in.	3 ft. to 4 ft. 8 in.	230	\$39.45
			With Wood Head Only.		

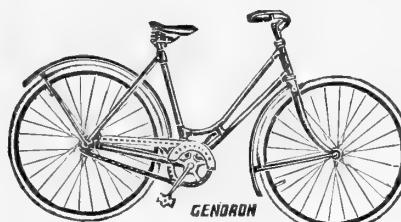
Specifications.

RELIANCE MEN'S ROADSTER



Frame—22 inch. Option on 20- and 24-inch.
Color—Black. Option on Royal Blue, Tan, Carmine or French Grey.
Crown—Drop-forged.
Rims—Hard Maple enameled and striped to match frame. Option on Crescent Steel Rims.
Hubs—Front, New Departure. Rear, Coaster Brake.
Hanger—Fauber Round Special.
Cranks—7-inch throw.
Sprocket—24-, 26-, 28 tooth front; 7-, 8-, 9- or 10 tooth rear. Regular gear, 9 and 26 tooth.
Chain—3-16 inch Roller Chain.
Pedals—Rat-trap.
Saddle—Troxel 4B.
Handle Bar—Ordinary adjustable 21 inch wide, 6 inch drop.
Tires—Reliance single tube, grey, studded non-skid tread, fully guaranteed.
MODEL NO. 33—Men's Bicycle with Peerless coaster brake \$50.00

BOYS' AND GIRLS' BICYCLE



Handle Bars—Adjustable.
Saddle—Troxel Juvenile with double coil springs.
Pedals—Standard Rat-trap.
Mud Guards—Rolled from cold-rolled steel with raised center.
Wheels—24 in.
Tires—1½-inch Gendron Juvenile single tube, guaranteed.
BOYS' NO. 92—Price \$39.50
GIRLS' NO. 97—Price 40.00

Specifications.
Frame—¾-in. seamless tubing.

Color—Black, with red striping. Option on blue with red striping, carmine or maroon with silver striping.

Fork Crown—Drop-forged.

Hubs—Turned from solid steel bar (no coaster brake).

Bearings—All bearings, including the head bearings, are turned from the solid steel bar, hardened and ground.

Chain—Diamond No. 9, 1-inch pitch.

Rims—Rolled from cold rolled steel with drop centers, valve hole shouldered; enameled to match frame.

PREMIER MEN'S ROADSTER



Departure, Corbin or Morrow Coaster.

Hanger—Fauber Round Special.

Cranks—Round 7-inch.

Sprocket—24-, 26-, 28-tooth front; 7-, 8-, 9-, 10-tooth rear.

Regular gear 9- and 26-tooth.

Chain—3-16-inch Roller Chain.

Pedals—Pirate Rat-trap.

Saddle—Troxel Tip Top No. 3.

Handle Bars—No. 25 adjustable, 21-inch with 6-inch drop. Mud Guards—Steel with drop center. Rolled edge, enamelled to match frame.

Tires—Reliance Single Tube 1½-inch, guaranteed.

MODEL NO. 19—Men's Bicycle with coaster brake, \$55.00.

GRITCO WAGONS

Entire wagon made of selected hardwood. Construction closely follows that of regular farm wagon, having bent bows and adjustable reach. All parts heavily braced and ironed.



STUDEBAKER JR. WAGON



The Studebaker Junior is a substantially made miniature wagon, not a mere toy. It is one of the finest and strongest wagons of its kind in the market, and is built after the style of the regular Studebaker—oak frame, farm wagon gearing with bent bows and adjustable reach, all parts strongly ironed and braced, welded tires, handsomely painted. Body is 17x36, wheels 12x18 inches.

With hand pole \$13.00
 With pole and shafts 14.00
 Sled runners for wagon 2.50

	List.	Retail.
Gritco Jr. No. 355, with hand pole	\$18.00	\$11.00
Gritco Jr. No. 355, with shafts	19.70	12.00
Gritco No. 356, with hand pole	19.00	11.75
Gritco No. 356, with shafts	20.70	12.75
Extra shafts	2.20	1.25
Extra wheels	2.20	1.25

Griffith & Turner Ball Bearing Grindstone

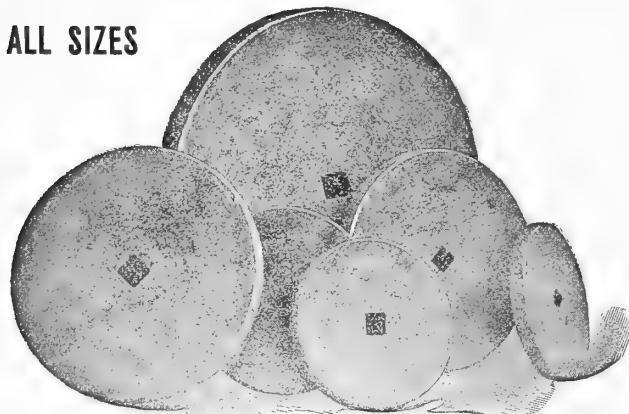


The G. & T. B. B. Grindstone has a combination steel and hardwood frame. Stone carefully selected Berea grit. Ball-bearing steel journals and axles. Stones usually furnished vary in thickness from $1\frac{1}{4}$ to $2\frac{1}{4}$ inches. Weight of frame and fixtures only 32 pounds. Shipped knocked down unless ordered otherwise. If crated, an additional charge will be made.

No. 1 Stone, 90-110 pounds, each.	\$8.50
No. 2 Stone, 70-80 pounds, each.	8.25
No. 3 Stone, 40-50 pounds, each.	7.75

WE CARRY A FULL LINE OF LOOSE STONES

ALL SIZES



PRICES: From 40 lbs. to 200 lbs., per lb., 3 cents.
Under 40 lbs., per lb., $3\frac{1}{4}$ cents.
Over 200 lbs., per lb., $3\frac{1}{4}$ cents.

GRINDSTONE FIXTURES

Grindstone Fixtures as used on G. & T. Ball-bearing Stones, per set..... \$1.75

Cheaper Cast Grindstone Fixtures with Shaft.

15-inch, per set.....	\$0.85
17-inch, per set.....	.90
19-inch, per set.....	1.00

ALL PRICES IN CATALOG SUBJECT TO CHANGE
WITHOUT NOTICE.

GRITCO BALL-BEARING GRINDSTONE

Price \$10.35



The Gritco Ball-Bearing Grindstone
is one of the strongest built, and
is practically indestructible.

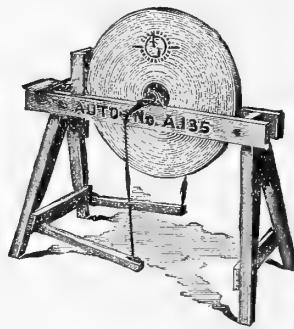
PRICE \$10.35

Gritco Roller Bearing Grindstone



Gritco Roller-Bearing
Grindstone.
PRICE \$9.75

Gritco Wood Frame Bi-Pedal Grindstone



No. 100—Shipping weight..... 150 lbs.
No. 200—Shipping weight..... 110 lbs.
No. 300—Shipping weight..... 90 lbs.

Thickness of Stones, $1\frac{1}{4}$ to $2\frac{1}{4}$ inches.

No. 100 Stone, 100-110 lbs.....	\$10.35
No. 200 Stone, 70-80 lbs.....	9.85
No. 300 Stone, 40-50 lbs.....	9.35

Gritco Wood Frame Grindstone

WITH FOOT
PEDAL AND
HAND
CRANK.

Shipping
Weight.

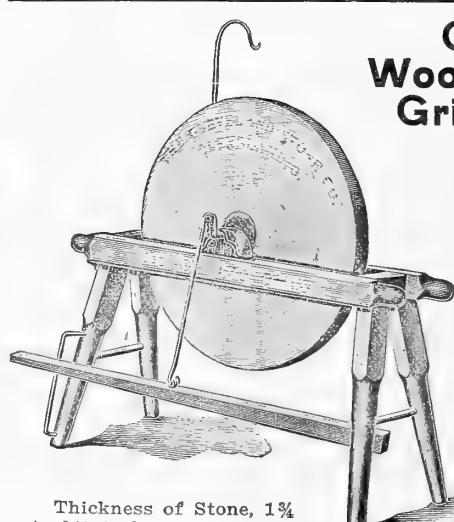
No. 1..... 150
No. 2..... 100
No. 3..... 75

PRICE:

No. 1 Stone, 100 to 110 lbs.	\$9.85
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No. 2 Stone, 70 to 80 lbs.	\$9.35
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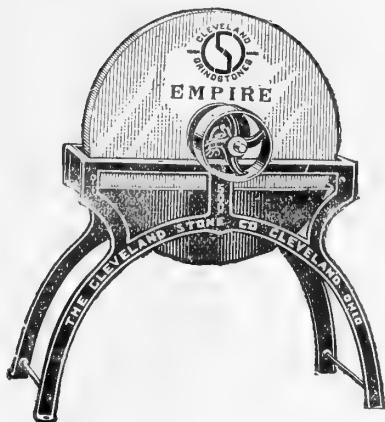
No. 3 Stone, 40 to 50 lbs.	\$8.85
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Thickness of Stone, $1\frac{1}{4}$
to $2\frac{1}{4}$ inches.

Empire Iron Frame Power Grindstone

THE EMPIRE BALL-BEARING POWER GRINDSTONE



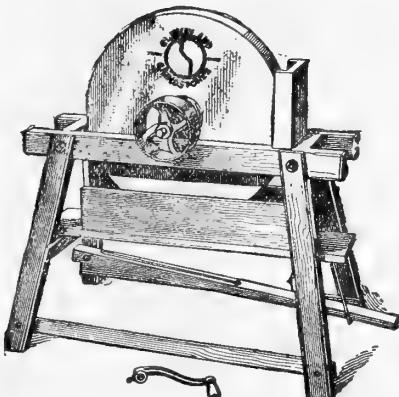
In diameter and 2 inches to 3½ inches thick. This is the most efficient and best grit produced for general use and especially for farm tools.

Weight complete, about 225 pounds.

Price, complete \$21.50

Farmers' Special Power Grindstone

WOOD FRAME



Price, complete \$17.00

Recognizing a demand for a high grade power grindstone for the farm at a popular price, we offer the Farmer's Special, a wood frame power grindstone especially designed to meet this demand.

In addition to the regular equipment for a power grindstone we furnish a foot treadle with ball bearings on the crank and a handle crank, either for use in case of emergency.

Frame shipped knocked down; stone crated.

Weight complete, about 175 pounds.

..... \$17.00

Harvest King Power Grindstone

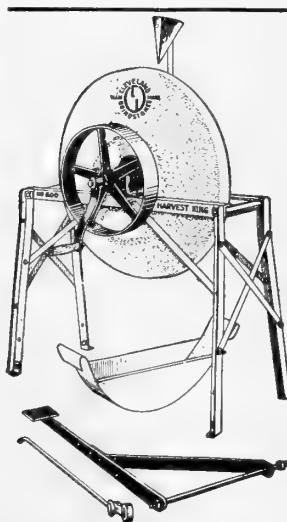
The frame is constructed of heavy angle steel strongly braced. It is equipped with high-grade selected Grindstone 24 in. by 2 in., furnished with 12-in. pulley with 2½-in. face, and heavy steel roller bearings, drip cup and hand cranks.

The frame is shipped folded complete, stone crated, to save freight. Weighs about 125 lbs.

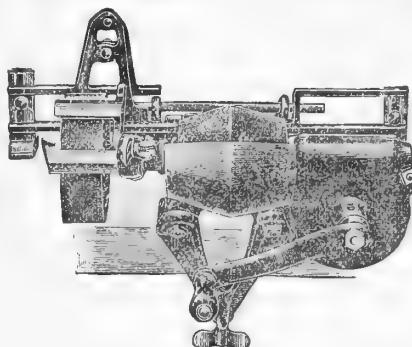
Price, regular, which includes 24 in. x 2 in. Stone, 12 in. x 2½ in. Pulley, Hand Crank and Drip Cup \$15.00

EXTRAS.

Trough \$1.75
Treadle, Pitman and Bearing 1.75



"BEST MADE" Sickle and Tool Grinder



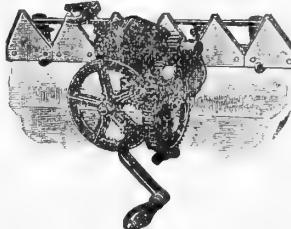
In putting out these new machines we are at once placing farm sickle grinders in the class of strictly high-grade machines.

These grinders can be attached to a bench or a mower wheel. The No. 255 has a swivel arrangement that the tool grinder can be turned to an upright position.

No. 265.—Double-faced medium and fine tool-sharpening wheel, 5x1½ inches in size, beveled sickle-sharpening wheel and special improved Tool and Chisel Guide. Weight, boxed, 22 lbs. Price \$10.00

No. 264.—This grinder is built on the same general principles as No. 265, but does not allow the frame to swivel to the upright position for tool sharpening, nor does it have the double-faced sharpening wheel. The tool-sharpening wheel is 4¼x1¾ inches in size. Weight, boxed, 23 lbs. Price \$9.50

NO. 82-C SICKLE AND TOOL GRINDER

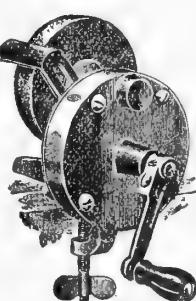


The No. 82C Grinder is a simple, compact and serviceable hand-power sickle and tool grinder especially suited to farm work. It can be clamped either to a mower wheel or to a bench. The tool wheel is 4⅓x1⅓ inches.

82C—With Bevel and Flat Tool Wheel \$7.50

82C—With Bevel Wheel 6.00

TOOL GRINDERS



No. 92—Kitchen Grinder, with smooth stone for sharpening knives \$2.25

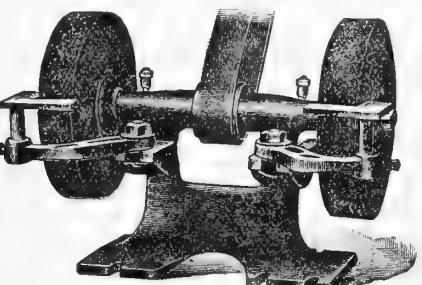
No. 94—it is equipped with a 4x¾-in. Grinding Wheel, and is intended for a Household Grinder. Weighs 6 lbs. boxed. Price \$3.75

No. 95—it is equipped with a 5x¾-in. Grinding Wheel, and will be found a very handy tool for mechanics. Weighs 7 lbs. boxed. Price \$5.00

No. 96—it is equipped with a 6x1-in. Grinding Wheel. Weighs 11 lbs. boxed. Price \$7.50

No. 17—it is equipped with a 7x1-in. Grinding Wheel, and will be found a very useful Grinder, doing the work very rapidly. Weighs 15 lbs. boxed. Price \$13.00

NO. 309-C POWER BENCH GRINDER

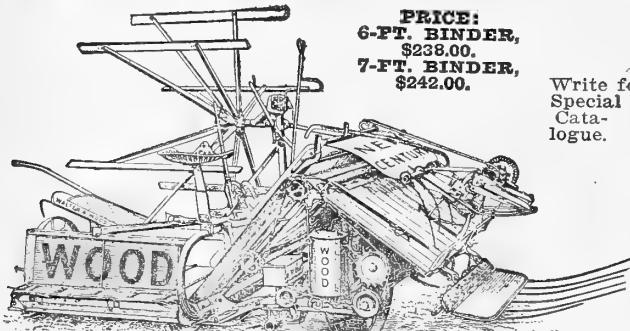


The large number of gasoline engines now being used have created a demand for a dependable power grinder. To meet this demand we offer this grinder, which is constructed along the best mechanical lines. It can be bolted to any bench and its heavy design makes it the ideal grinder for power of any sort. It is equipped with two

sharpening wheels of Light Dimo-Grit, 7 inches in diameter and 1¼ inches wide, one medium grit and the other coarse, and two universally adjustable tool rests. Weight, boxed, 32 pounds. Price \$14.50

Walter A. Wood

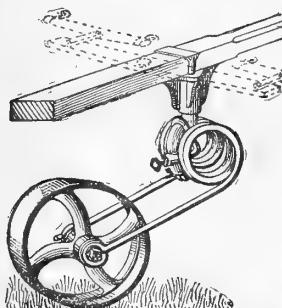
NEW CENTURY GRAIN BINDER



PRICE:
6-FT. BINDER, \$238.00.
7-FT. BINDER, \$242.00.

Write for
Special
Catalogue.

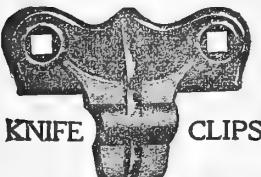
Rigid main frame of heavy angle steel. Strong double-truss joint between main frame and platform. Great 36-inch all-steel drive wheel. "Z"-shaped finger bar. Low elevators with easy slope. Unusually deep elevator; greater capacity for heavy crops. Steep-pitched binder deck. Relief roller between elevators and deck. Automatic tighteners on all aprons. Three under-packers, assuring perfect work in short grain. Revolving discharge-arms, making perfect separation. Improved spring dropboard. Improved compression device. Unequaled knoter, grasper and tension. Binder driven from the rear.



Keystone Tongue Support

FOR HARVESTING MACHINERY
AND DISK HARROWS.

This Tongue Support is simple and light in weight. The springs are made of best $\frac{5}{8}$ -inch spring steel. The coils are $\frac{1}{2}$ inches in diameter, and have arms extending 12 inches. The wheel is $1\frac{1}{2}$ inches high, with $2\frac{3}{4}$ -inch tread, thus assuring a light draft. No holes need to be bored in the tongue to fasten this support, thus allowing the tongue all its strength. Price, \$5.00.



KNIFE CLIPS



WEARING PLATES

KNIFE CLIPS		Price
To Fit the Following Machines:	Each.	
Champion, A413, A468, A467, A693.	\$.15	
Deering, F94, E461.	.15	
McCormick, M254, M533, H496, H919.		
L39		
McCormick, M290, M298, M652.	.25	
Milwaukee, J1, Osborne, E36.	.15	
Osborne (Columbia), K256.	.15	
Plano, J46, J106, J325.	.15	
Wood, 171, 1432.	.25	

Pitman Straps or Clasps		Price
To Fit the Following Machines:	Each.	
Malleable Deering, D464, D465, D605, D606, D470, D607.	.35	
Malleable McCormick, M556, M557, M147, M304, M315.	.35	
Malleable Milwaukee, PJ9, PJ9 $\frac{1}{2}$, PH34, PH35, PG34, PG35, PJ34, PJ35.	.35	
Malleable Plano, J118, J119, J120, J121.	.35	
Plano, J378, Steel (will answer for 355). Plano, J379, Steel (will answer for 356). Plano, J380, Steel (will answer for 357, 358).	.35	

WOOD PITMANS

PITMAN STRAPS OR CLASPS

BINDER CANVAS SLATS

Each, 10c.

WOOD PITMANS

(Without Pitman Box and Bolts.)

To Fit the Following Machines:	Price
Deering (Ideal Mower), 1901 and since, D1471.	\$1.60
McCormick (Big 4 Mower), 1896 and since, M392.	1.60
Milwaukee (No. 6 Mower), 1894 and since, PN290.	1.60
Plano (Jones Mower), 1901 and since, No. 7394.	1.60

WEARING PLATES

To Fit the Following Machines:

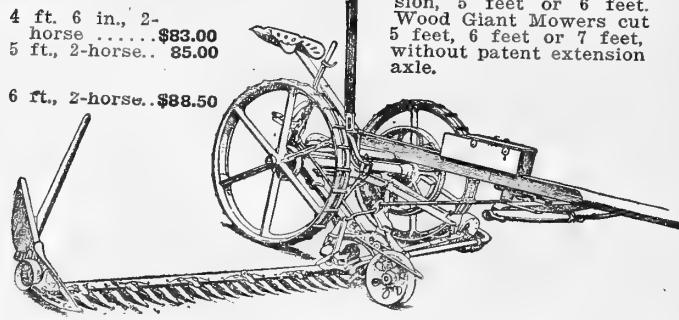
Champion, H315, Under Shoe Cap.	
Champion, H282, Under Clips.	
Deering, D1038, Under Clips.	
Deering, 1040, Under Shoe Cap.	
Deering, D1455, Under Shoe Cap.	
McCormick, M468, Under Clips.	
McCormick, M490, Under Shoe Cap.	
Milwaukee, PK156, Under Clip PJ1.	
Milwaukee, PG157, Under Shoe Cap.	
Osborne, K325, Under Clips.	
Plano, 7094, Under Clips.	
Plano, 7095, Under Shoe Cap.	

Retail price, each, 15c.

WALTER A. WOOD ADMIRAL MOWERS

4 ft. 6 in., 2-horse \$83.00
5 ft., 2-horse.. 85.00

6 ft., 2-horse.. \$88.50



Wood two-horse Mowers cut a swath 4 feet 3 inches or 4 feet 6 inches; with patent axle extension, 5 feet or 6 feet. Wood Giant Mowers cut 5 feet, 6 feet or 7 feet, without patent extension axle.

WALTER A. WOOD Vice-Admiral Mowers

With Steel Wheel, \$81.00.

Wood one-horse Mowers cut a swath 3 feet 6 inches.

Link Chain Belting

No.	Links per ft.	Av. Ult. strength lbs.	List price per ft. all plain links	Retail per link
25	13.3	700	15c.	3c.
32	10.4	1100	15c.	3c.
33	8.6	1190	15c.	3c.
34	8.6	1300	15c.	3c.
35	7.4	1200	15c.	3c.
42	8.75	1500	17c.	4c.
45	7.4	1600	15c.	3c.
48	6.	1660	17c.	4c.
50	8.7	1900	20c.	5c.
51	10.4	1900	21c.	6c.
52	8.	2300	20c.	5c.
52 $\frac{1}{2}$	7.9	2866	29c.	6c.
55	7.4	2200	18c.	5c.
62	7.25	3100	25c.	6c.
65	5.66	2460	21c.	6c.
72	5.9	4240	33c.	8c.
72 $\frac{1}{2}$	7.25	4590	43c.	8c.
76 $\frac{1}{2}$	5.8	3890	31c.	8c.
77	5.2	3600	33c.	9c.

For use on Mowers, Reapers, Binders, Corn and Wheat Harvesters, Feed Cutters, Straw Stackers, Traction Engines, etc.

SPRING COTTERS



Assorted, doz. \$.18
Assorted, box of 100..... 1.00

PITMAN WOODS

Finished and Bored, Without Straps, Bolts or Boxes. To fit the following machines: Deering (Ideal Mower). McCormick (Big 4 Mower). Milwaukee (No. 6 Mower). Plano (Jones Mower). Each, 40c.

PITMAN BOLTS

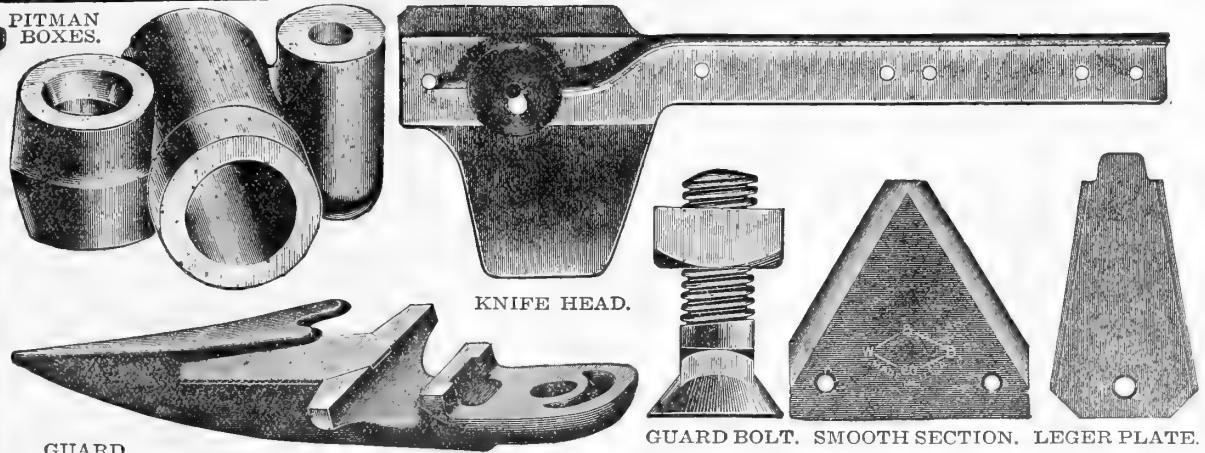
To Fit the Following Machines:
Deering Knife End, Deering Box End. McCormick, M322, with Nut; M483, with Nut $2\frac{1}{2}$ x7/16; 483 $\frac{1}{2}$, with Nut 3x7/16.

Milwaukee, with Horn Nut, PG174. Milwaukee, with Ratchet Nut, PG175. Osborne, Box End (Long). Osborne, Knife End (Short). Plano, 7/16x3, with Nut J134. Plano, 7/16x2 $\frac{1}{2}$, with Nut J103. Plano, 7/16x2 $\frac{1}{2}$, with Nut J147. Plano, 7/16x2 $\frac{1}{2}$, with Nut J363. Each, 25c.

Buckeye, complete with washers... \$.25
Champion, H442, with Nut..... .25
Champion, H609, with Nut..... .25
Champion, $\frac{1}{2}$ -inch, Left, A96..... .25
Champion, $\frac{1}{2}$ -inch, Right, No. 13..... .25
Champion, $\frac{3}{8}$ -inch..... .25
Wood, with Nut..... .25

ALL PRICES IN CATALOG SUBJECT
TO CHANGE WITHOUT NOTICE.

PITMAN BOXES.



GUARD.

GUARD BOLT. SMOOTH SECTION. LEGER PLATE.

MOWER SMOOTH SECTIONS, KNIVES AND GUARDS

Made to fit the following Machines.	Size of Section.	Retail Price of Section.	No. of Guard.	Retail Price of Guard.	No. of Knife Head.	Retail Price of Knife Head.	Knives complete. 4 1/2 ft. 5 ft.	Pitman Boxes No.	Retail Price of Pitman Boxes.
Wood.....	3x3 1/8	\$.08	2355	.35	2479	.40	\$3.00 \$3.10	A 2301	\$1.30
Wood.....	3x3 1/8	.08	A	.35	1680	.40	3.00 3.10	A 2301	1.30
Wood.....	3x3 1/8	.08	L	.35	2862	.40	3.00 3.10	2941	1.15
Wood.....	3x2 5/8	.08	F. F.	.35	1810	.40	3.00 3.10	1785	1.10
Deering.....	3x3 3/4	.08	D 698	.35	D 463	.40	3.00 3.10	D 711	.65
Deering.....	3x3 3/4	.08	D 698	.35	F 123	.45	3.00 3.10	D 334	1.00
Deering.....	3x3 3/8	.08	F 1/2	.35	F 174	1.00	3.00 3.10	.....	.....
Deering.....	2 1/4 x3 1/8	.08	F 99 1/2	.35	F 74	1.00	3.00 3.10	.....	.....
McCormick....	3x3 3/16	.08	M 462	.35	M 139	.40	3.00 3.10	M 317	.65
McCormick....	3x3 1/16	.08	M 253	.35	M 139	.40	3.00 3.10	.....	.....
Champion.....	3x3 3/16	.08	A 881	.35	A 870	.40	3.00 3.10	B 683 1/2	.30
Champion.....	3x3 5/16	.08	A 41	.35	A 415	.40	3.00 3.10	.....	.....
Champion.....	3x3 9/16	.08	A 42	.35	A 415	.40	3.00 3.10	A 747	.75
Champion.....	3x3 3/16	.08	A 811	.35	A 415	.40	3.00 3.10	.....	.....
Osborne.....	3x3 3/16	.08	K 514	.35	K 774	.40	3.00 3.10	K 826	.80
Osborne.....	3x3 High Punch	.08	K 280	.35	K 284	.40	3.00 3.10	K 278	.65
Osborne.....	3x3 Low Punch	.08	K 72	.35	K 212	.40	3.00 3.10	.....	.....
Johnston.....	3x3 3/8	.08	1811	.35	2211	.40	3.00 3.10	2207	.65
Johnston.....	3x3 1/8	.08	77	.35	124	.40	3.00 3.10	257	1.00
Plano.....	3x3 1/8	.08	J 110	.35	J 94	.40	3.00 3.10	J 100-J 99	.65
Milwaukee.....	3x3 1/8	.08	P K 5	.35	P.G. 6	.40	3.00 3.10	P J 50	.80
Adriance Buckeye	3x3 1/8	.08	3087	.35	557 F	.45	3.00 3.10	.....	.....
Akron Buckeye 3x3 3/8	Low Punch	.08	775	.35	301	1.00	3.00 3.10	.....	.....
Akron Buckeye 3x3 3/8	High Punch	.08	775	.35	301	1.00	3.00 3.10	.....	.....
Dain.....	3x3 3/16	.08	Z 5	.35	Z 4	.40	3.00 3.10	Z 162	.65

Prices on application.

MOWER KNIFE.

SECTION AND



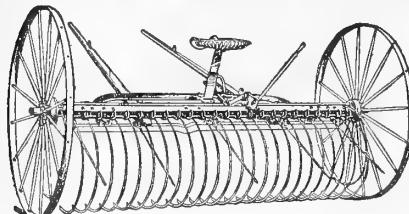
BINDER SICKLE SECTIONS, GUARDS AND KNIVES

Machines. Made to fit the following	Size of Section.	Retail Price of Section.	No. of Guard.	Retail Price of Guard.	No. of Knife Head.	Retail Price of Knife Head.	Knives complete. 6 ft. 6 1/2 ft. 7 ft.		
Wood Binder.....	3 x2 5/8	\$.08	W	.35	H 2139	.45	\$3.40	.....	\$3.80
Wood Binder.....	3 x2 3/16	.08	H 171	.35	H 1150	.40	.....	.....	\$3.80
Deering Binder.....	3 1/8 x2 1/8	.08	286	.35	H 260	.40	3.40	.....	3.80
Deering Binder.....	3 1/8 x2 5/16	.08	286	.35	A 46	.40	3.40	.....	3.80
McCormick Binder.....	3 x2 1/8	.08	H 495	.35	B 23	.40	3.40	.....	3.80
Champion Binder.....	3 x2 5/8	.08	U 53	.35	1852	.40	3.40	.....	3.80
Osborne Binder.....	3 x2 1/4	.08	D 300	.35	B 587	.40	3.40	.....	3.80
Johnston Binder.....	3 x2 3/8	.08	50 A	.35	L 296	.40	.....	3.80	.....
Plano Binder.....	3 x2 3/16	.08	L 300	.35	L 395	.40	3.40	.....	3.80
Plano Binder.....	3 x2 1/2	.08	L 67	.35	L 66	.40	3.40	.....	3.80
Milwaukee Binder.....	3 1/8 x2 1/4	.08	J 76	.35	H 41 7/8	.40	3.40	.....	3.80
Adriance Binder.....	3 x2 1/2	.08	1265	.35	1245 A	.40	3.40	.....	3.80
Akron Buckeye Binder.....	3 x2 1/4	.08	T 35	.35	H 700	1.00	3.40	.....	3.80

Leger Plates for all Machines, 6c. each. Section and Guard Rivets, 25c. lb. Guard Bolts for all Machines, 5c. each.

Above we give a table of sizes, numbers and prices of Sections, Guards, Knife Heads and Knives complete, and combinations generally used. In some cases more than one Knife Head and Guard have been used with the same section. In ordering, always give number of Guard and Knife Head, also drawing of Section wanted, showing holes punched in Section. In ordering Knives complete, always give number of old Knife Head; also give number of cutting sections.

BALTIMORE STEEL-DUMP HAY RAKE



An efficient, convenient rake of great strength and durability. One-piece angle steel frame; steel axle extends from wheel to wheel and trussed to give double strength. Trip attachment very simple. It is attached to center of axle; equipped with hand lever; oil tempered steel teeth within independent tooth-holders; combined pole and shafts.

8 ft., 20 Teeth...List Price, \$72.00. Our Special Price, \$44.00
9 ft., 24 Teeth...List Price, 79.00. Our Special Price, 47.50

WALTER A. WOOD STEEL SELF-DUMP RAKES

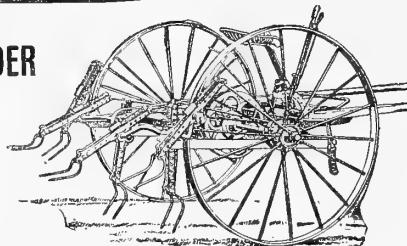
8 ft., with 20 Teeth. List Price, \$72.00. Our Special Price, \$44.00
8 ft., with 24 Teeth. List Price, 74.00. Our Special Price, 45.00
9 ft., with 27 Teeth. List Price, 79.00. Our Special Price, 47.50

LORD BALTIMORE STEEL TEDDER

Well-built, large ground wheels, free from vibration. Center chain drive.

6-Fork. List Price, \$120.00. Our Special Price, \$75.00.

8-Fork. List Price, \$132.00. Our Special Price, \$80.00.



WALTER A. WOOD TEDDER

6-Fork. List Price, \$122.00 Our Special Price, \$75.00
8-Fork. List Price, 132.00 Our Special Price, 80.00

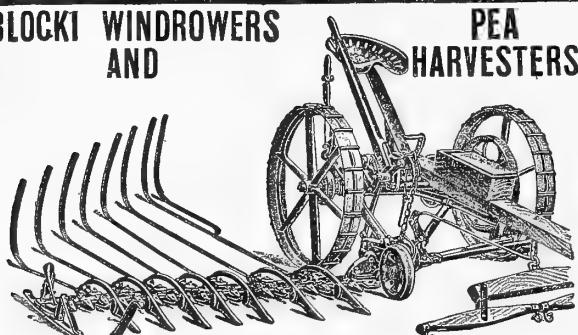
RAKE TEETH FOR Leading Rakes

In ordering, either send old tooth or exact drawing and avoid errors.

List Price, 70c.

Our Special Price, 50c.

BLOCKI WINDROWERS AND



Use the Blocki Windrower for harvesting the seed crops of red, alsyke, mammoth and alfalfa clovers. Sometimes also used for harvesting flax, buckwheat, and even short tangled grain. Is an excellent tool to harvest cow peas, beans, etc. Can be readily attached to any mower and gives the best satisfaction. The guards are strong, being made of malleable iron; the rods retain their shape because they are made out of the right kind of steel.

Blocki Pea Harvester No. 7X consists of 7 Guards, 7 Rods and Divider.

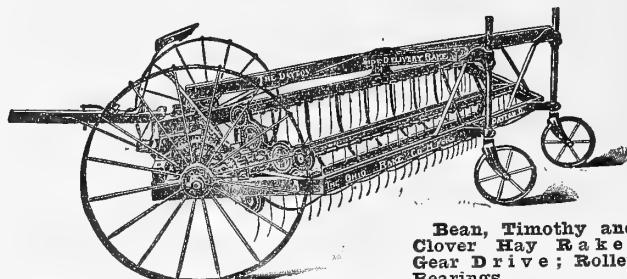
Blocki Pea Harvester No. 8X consists of 8 Guards, 8 Rods and Divider.

Blocki Pea Harvester No. 9X consists of 9 Guards, 9 Rods. and Divider.

Prices:

No. 7X.....	\$25.00
No. 8X.....	27.50
No. 9X.....	30.50
Windrower for 4½ or 5-ft. Mower.....	18.25
Windrower for 6-ft. Mower.....	21.75

LORD BALTIMORE SIDE-DELIVERY RAKE



Bean, Timothy and Clover Hay Rake; Gear Drive; Roller Bearings.

Gathers the hay on the ground, and delivers it at one end of the machine in a continuous windrow. It is an all-gear drive machine; heavy, strong and powerful all the way through. List Price, \$180.00; Our Special Price, \$110.00.

LORD BALTIMORE HAY LOADER

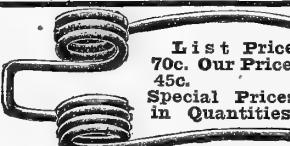
Has been carefully designed and embodies all of the up-to-date improvements.

By means of a simple adjustment, provided on each axle box, the rake bars can be raised or lowered to meet various conditions of the soil and the hay. This adjustment makes it unnecessary for the hitches on loader to be changed.

The rake bars are open construction, so that every part is visible.

The Lord Baltimore Hay Loader will certainly meet the wants of every farmer that desires a machine which is free of all complicated and intricate parts. Wheels, 46 inches diameter. Weight, 1213 lbs.

No. 1, with Steel Wheels, List Price, \$212.00. Our Special Price, \$125.00.



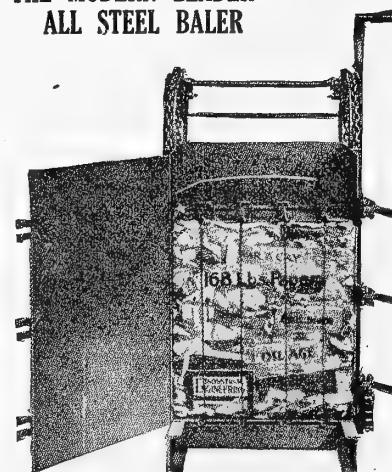
List Price,
70c. Our Price,
45c.
Special Prices
in Quantities.

TEDDER FORKS

Always on hand, stock of forks for leading styles of hay tedders.

When ordering tedder forks, always state name of tedder, year it was made, if possible, and whether fork is in one or two pieces.

THE MODERN LEADER ALL STEEL BALER



structed entirely of highest quality steel. It is indestructible, and will last forever. The size of the bale which it makes is 20x24x30 inches, and weighs about 150 pounds.

The Modern Leader has an open top similar to any wastebasket. The plunger is raised when not being used, so that the baler can be filled without litter.

Send in your order today, and begin at once to stop up the money leaks in your waste material.

Price (New Style), \$75.00 Price (Old Style), \$65.00
No. 0 King Baler, 14x18 bales, 65 to 75 lbs.....\$10.00
No. 1 King Baler, 15x20 bales, 100 to 125 lbs.....15.00

This baler is a device that is so low in initial cost that the material which it conserves pays for it in a short time. It bales all kinds of material, such as paper, scrap, pasteboard boxes, excelsior, cloth clippings, old rags, tobacco stems, tin and galvanized scrap in can factories, steel shavings in machine shops, etc.

The great and increasing demand for all kinds of waste material of every description has put you in a position to change this waste into cash.

This device is so simple that anyone can easily operate it. It is compact and occupies a very small space—30x30 in. The machine stands 5 feet high, and is constructed entirely of highest quality steel. It is indestructible, and will last forever. The size of the bale which it makes is 20x24x30 inches, and weighs about 150 pounds.

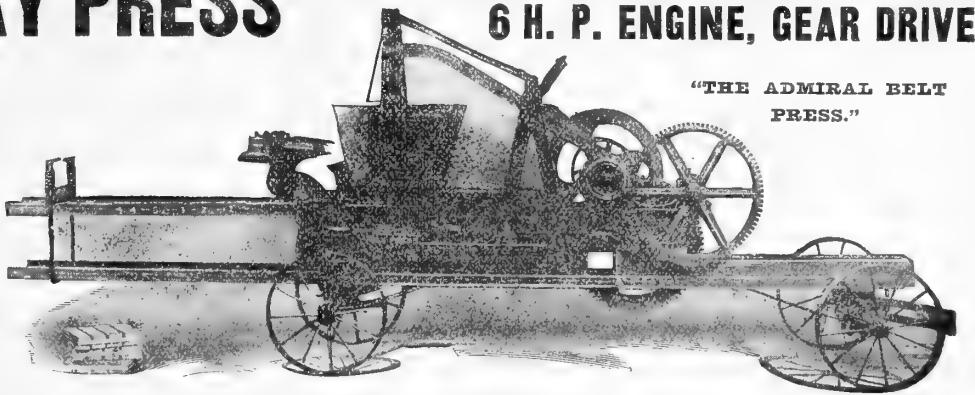
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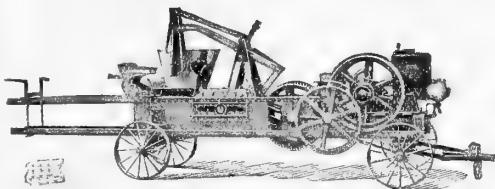
THE FAMOUS ADMIRAL RACK AND PINION HAY PRESS

Admiral Belt Presses are built either for belting to separate power or for mounting a six- or eight-horsepower engine on the same trucks. The details of construction are identical with the Admiral Motor Press, which is in use all over the United States and Canada. The weights are 14x18—3300 lbs.; 17x22—3750 lbs. In ordering the Admiral Belt Presses do not neglect to advise us of the diameter of your engine pulley and the speed of the engine. Price of Belt Power Press without engine, 14x18, \$543.25; 17x22, \$609.50.



"THE ADMIRAL BELT PRESS."

"THE ADMIRAL MOTOR PRESS"



"The Admiral Motor Press" is a marvel of effective simplicity. Few parts, but those very strong. The close coupling, wheelbase, 10 feet 2 inches; low-feed opening, 42 inches; light weight, 4500 lbs. in the 14x18, 4950 in the 17x22, including a 6-horsepower gasoline engine, makes it an ideal rig for any kind of baling. The machinery is covered, out of the way. The Admiral movement, by which the leverage constantly increases as the hay is compressing, is the secret of the wonderful capacity and service of this famous hay press. Write for special Admiral folder, which explains the details fully.

14x18, with 6 H. P. Engine.....	\$805.00
17x22, with 8 H. P. Engine.....	937.50
14x18, arranged for Engine, but without Engine.....	557.25
17x22, arranged for Engine, but without Engine.....	626.50

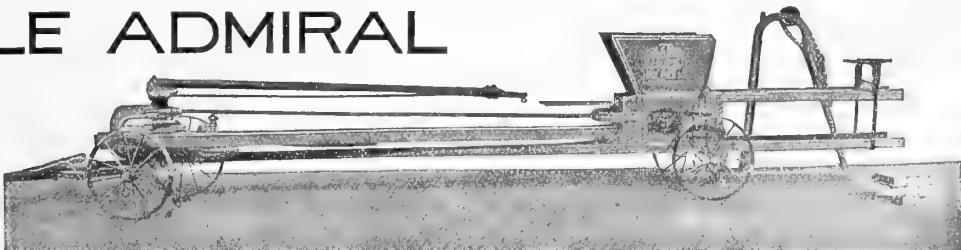
THE ADMIRAL 3-STROKE TWO-HORSE HAY PRESS

THE CELEBRATED TWO-MAN PRESS HAS SELF FEEDER AND CONDENSING PACKER

The Admiral two-man horsepower hay press was the first three-stroke, self-feed hay press. Foot-feeding is dangerous and expensive. Admiral two-man hay balers save the most expensive labor on the press, the feeder. Three feeds to the round mean an extra feed to every round of the team, and make the draft easier and steadier on the horse. The 26-inch feed opening, with three feeds, gives you 78 inches of feed opening to every round of the teams. The construction is all steel and heavy cast. All small castings are malleable. Admiral Hay Presses built in the nineties are still baling hay. Built in standard sizes, the weights are respectively: 14x18, 3000 lbs.; 17x22, 3400 lbs. The Admiral Two-Man Press is equipped with tongue, neck-yoke, double trees, hay tray, forks, division boards and lifting jacks. An Admiral will keep that idle team of yours busy. Price, 14x18, \$420.00; 17x22, \$453.75.

We regret that lack of space makes it impossible for us to properly illustrate this press here. We therefore request particularly that anyone interested in a two-horse sweep power press, write for special illustrated booklet.

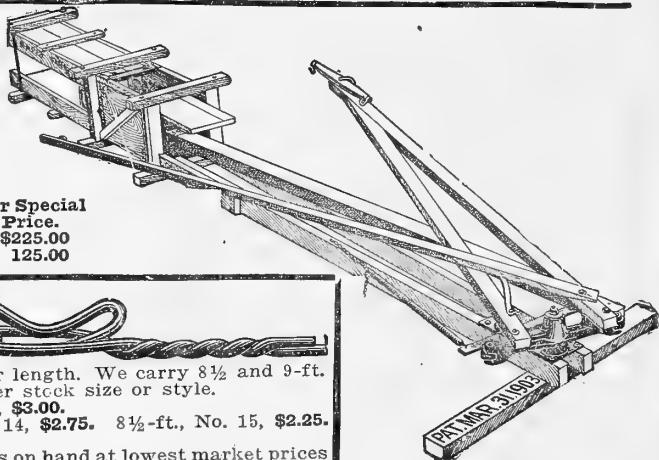
THE LITTLE ADMIRAL HAY PRESS



The Three-Stroke Fork Feed Little Admiral is intended for the farmer who has comparatively small acreage, and yet wants to do his own baling. It is the only three-stroke, one-horse hay press on the market. The short crank enables one horse to make as heavy bales as desired. It is all-steel, and built only in the 14x18 size, and weighs 2140 lbs. This press has met with wonderful success throughout the South, where a baler of this kind is in demand, on account of its big capacity, steady construction and light weight. Three feeds of 22 inches each give 66 inches of feed opening to every round of the horse. If you have as little as 50 tons to bale, it will pay you to own a Little Admiral. Price, \$250.00.

RAPID-FIRE HAY PRESS

In this press the end of Pitman extends far past end of drive arm; wedge and roller are on the opposite side of Pitman. The forward stroke begins by the drive arm pushing against roller on opposite side, thus pushing plunger rapidly forward at the beginning of stroke and while hay is still loose in box. The drive arm takes up the stroke just as the hay is becoming compact. With the one-horse Rapid Fire Press you get two 33-inch strokes to one round of horse.



Our Special
Price.
\$225.00
125.00

One-Horse Rapid Fire All-Steel Press, Mounted.....

One-Horse Rapid Fire Press, not Mounted

BALING TIES

Cross Heads



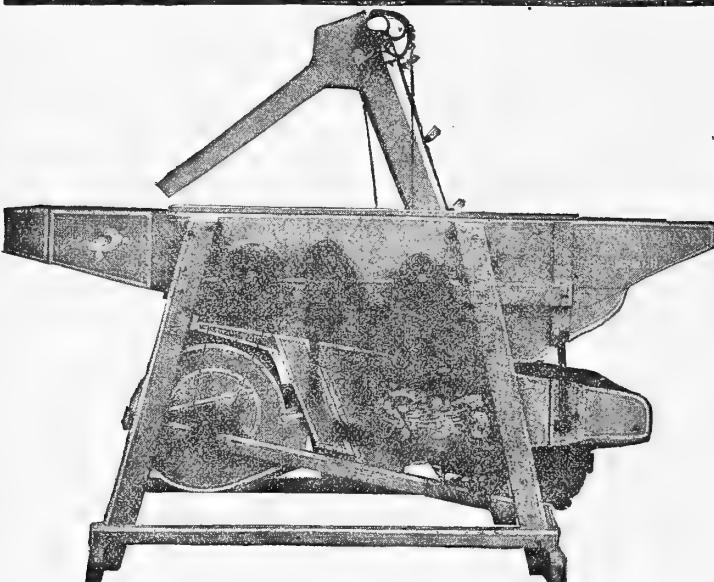
Measure around the bale and add three inches to get the proper length. We carry 8½ and 9-ft. Cross Heads and 9 and 9½-ft. Single Loop. Can furnish any other stock size or style.

CROSS HEAD BALE TIES.—9-ft., No. 14, \$3.50. 8½-ft., No. 15, \$3.00.

SINGLE LOOP BALE TIES.—9-ft., No. 14, \$2.50. 9½-ft., No. 14, \$2.75. 8½-ft., No. 15, \$2.25.

9-ft., No. 15, \$2.35.

ANNEALED BALING WIRE.—Nos. 11, 12, 13, 14 and 16 always on hand at lowest market prices on application. Special prices in quantity to Threshermen and Balers.



are growing peas and beans you will find the **16x20 Owens Huller** a splendid all around, useful machine that will quickly pay for itself and afterwards be a source of great profit. Capacity, 14 to 20 bushels per hour. Weight, 750 pounds. Without Repeat Elevator. Price, \$250.00. Repeat Elevator Extra, \$20.00.

THE No. 9 ROYAL PEA HULLER

New model No. 9, with heavy bearings, wooden frame and box; malleable iron cylinder and concave sections. Teeth do not break. Heavy fly-wheel and two cranks. Patent revolving screen, which insures absolutely clean peas and carries the refuse through a separate outlet. Reversible hopper to allow use of machine for cleaning wheat or other small grain. Cleans and threshes the peas thoroughly without breaking them. Shipping weight, 260 pounds. Can be furnished for operation by power by substituting a pulley and heavier shaft for one of the cranks at an additional net cost of \$2.50. Cow Peas intended for seed should be allowed to get more mature. These will unavoidably lose most of the leaves, but will still be good feed after the Peas are picked and threshed.

A very successful method of handling this crop is to pick the pods and thresh the Peas, turning the vines under, thus making the Cow Pea a profitable money producer (they always bring good prices) and at the same time a soil saver. It comes nearer solving the problem of "eating your cake and having it, too" than any other proposition on the farm. The price of Seed Peas in some seasons have ranged as high as \$4.00 per bushel, and it is therefore an object for every farmer to save his own seed (and sell them, too), which can best be accomplished by the use of a ROYAL PEA HULLER.

THE ROYAL PEA HULLER will save a larger per cent. of all the Peas than any other known method. The ownership of a Royal Pea Huller represents an outlay so small in comparison to the benefits, that no successful farmer will be without one.

Special and exclusive features to be had only with these machines are covered by patent, and cannot be had in any other make.

Capacity, 8 to 15 bushels Dry Peas per hour. Price, \$55.00.

OWEN'S BEAN AND PEA THRESHER

STRONG AND EFFICIENT. (No. 4).

It will thresh all varieties of beans and peas directly from the vines as taken from the field, without splitting the grain, and at the same time shred the vines, the same as the larger size threshers. We wish to make one exception to the above, and that is in cow peas, where the vines grow very rank and heavy. You will readily see that, on account of its size, the **No. 4** could not possibly be expected to handle these like one of our larger threshers, but where the vines do not grow too large and where care is exercised in feeding, it does very good work, indeed. We have shipped a great many of the **No. 4** threshers to all parts of the South, and they are giving excellent satisfaction, especially with those who simply wish to save the seed and do not care for a large capacity. Capacity, 10 bushels per hour. One to three horse-power.

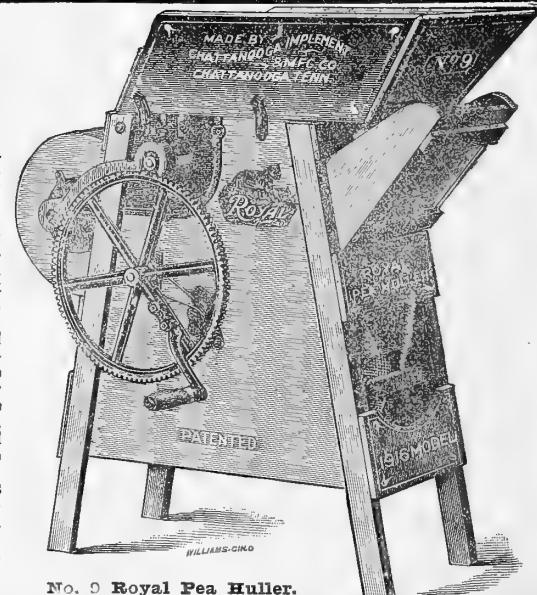
The **No. 4** will also thresh buckwheat. Weight, 400 pounds. Price, \$150.00.

16x20 DOUBLE CYLINDER.

The machine will thresh all kinds of peas and beans, no matter what kind or variety you grow, even cow peas and soy beans, directly from the vines without splitting the seed.

The **16x20** will produce the seed in the cleanest possible manner, because of the large separating space and strong blast that we have equipped all Owens Threshers with, thus demanding the highest market prices. This machine will also thresh buckwheat, kafir corn, cane and sorghum. Many customers successfully thresh small grain, such as wheat, oats, barley, millet, etc., but extras are necessary to give the proper speed. If you

use this machine will quickly pay for itself and afterwards be a source of great profit. Capacity, 14 to 20 bushels per hour. Four horse-power. Weight, 750 pounds. Without Repeat Elevator. Price, \$250.00. Repeat Elevator Extra, \$20.00.



No. 9 Royal Pea Huller.

MARYLAND LEVER CUTTER

Strong, Cheap and Durable.



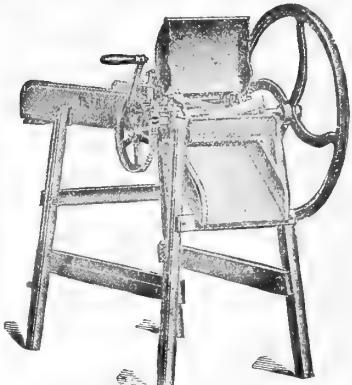
Knife, 11-inch. Wt., 55 lbs.
Retail \$6.75

CYLINDER TYPE HAND CUTTERS

ROSS TWO KNIFE

No. 11½

No. 11½—“TWO-KNIFE.”—The feeding rolls on this cutter are operated by means of cog wheels and sprockets. The feed is constant and uniform, and the cutter has large capacity. The feed rolls are equipped with coil tension springs; the cutter has large heavy flywheel, large crank, chilled shear bar and hardwood frame; length of cut, $\frac{1}{4}$ inch, $\frac{1}{2}$ inch and 1 inch. Special gears for cutting $\frac{1}{8}$ inch can be furnished on order. Our Special Price, \$32.25.



THE BALTIMORE PONY CUTTER

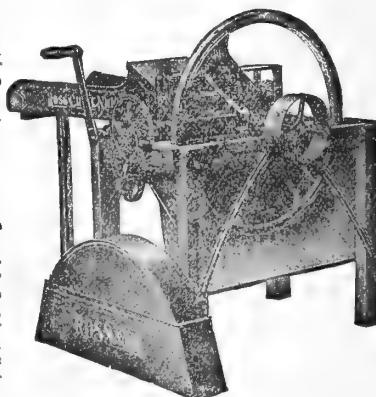
Adapted to cutting hay, straw and corn fodder, and is suitable for persons keeping from one to four or five animals. Weight, K. D., packed for shipment, 160 pounds.

Retail. \$32.00
One-knife, 11½ inches long.....



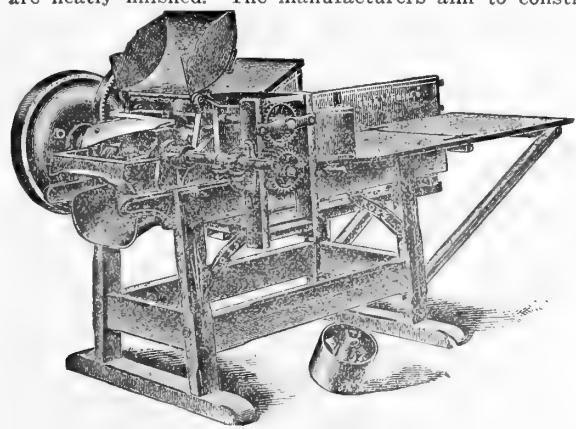
Ross No. 10 Knife on Fly Wheel Type of Cutter for Hand and Power

In the No. 10 Ross Cutter we are offering a very convenient machine for cutting corn fodder, hay, etc., either by hand or by power. It will be noted in addition to having a crank for hand use, it is equipped with pulley, so that it can be belted to small gasoline engine or horse power. It can be adjusted to cut $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$ or 1 inch. It has two 11½-inch knives. All bearings are babbitted. The frame is of hardwood and strongly constructed. Weight, 300 pounds. Retail, \$46.75.



ROSS STANDARD HAY AND FODDER CUTTERS

The excellence of the Ross Fodder Cutters is well known. They are the result of over 50 years' experience in manufacturing this class of machinery. They are built strong and durable, possess valuable features for convenience and efficiency, and are neatly finished. The manufacturers aim to construct a line of cutters which will not only do the work, but do it so well that the buyer is sure to be pleased in every way. On account of lack of space, we cannot give a full description of the exclusive patented features possessed by the Ross Cutters, but will be pleased to mail to anyone interested in the purchase of a cutter a special catalogue of the Ross line. Will mention briefly here that some of these features are: Very efficient feeding rolls, which are positive, and which are provided with a knuckle-joint arrangement to allow the rollers to readily adjust themselves to uneven feeding of the machine without binding or causing friction; a special comb bar for keeping the spiked roller clear; a four-sided reversible steel cutting plate; an improved type of safety flywheel; a practical and convenient knife adjustments; a special starting and stop lever, and the Ross folding feed table.



CARRIERS FOR ROSS CUTTERS

We list below two styles of carriers which can be furnished with Ross Cutters—the angle and straight carrier and the swivel carrier. These are illustrated and fully described in the Ross special catalogue.

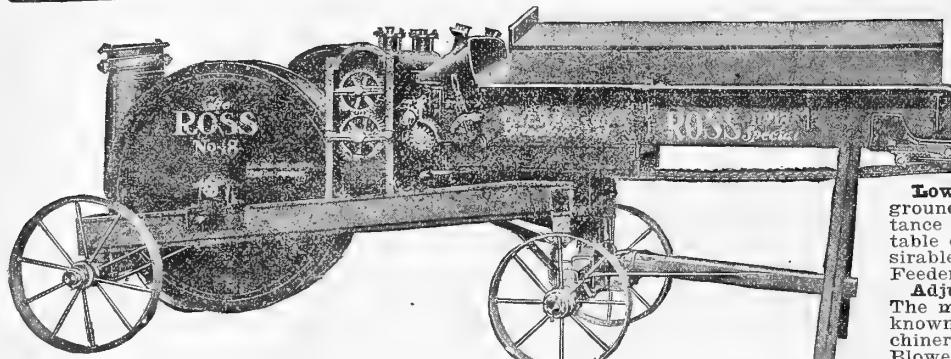
ROSS SHREDDERS

Ross machines can be furnished with either knife or shredder cylinder, as listed below.

Size	Knives Inches	Capacity per Hour on 1-Inch Cut		Power Required H. P.	Weight Pounds	Price with Either Cutter or Shredder		Price of 12-Foot Angle and Straight Carrier Retail	Price of 12-Foot Swivel Carrier Retail	Extra Carrier per Foot Over 12-Foot List	Retail
		Ensilage Tons	Dry Fodder Tons			Cylinder Retail	Carrier Retail				
No. 111	4-11	3 to 4	1 to 1½	2 to 3½	425	\$70.50					
No. 113	4-13	4 to 6	1½ to 2	2 to 5½	550	92.75					

PRICES ON APPLICATION.

Shredder Cylinder: If both shredder and knife cylinders are wanted, write for prices.



ROSS IMPROVED ENSILAGE CUTTER

With Traveling Feed Table and All Steel Blower

The illustration represents the Ross line of Silo Fillers especially designed for heavy work, such as large Plantations or by Threshermen for jobbing work.

Low Down, so that feeder stands on the ground instead of up on machine. Distance from ground to top of traveling table only 3 feet 9 inches. The most desirable machine made for convenience of Feeder.

Adjustable Bearings for Blower Shaft. The merits of the adjustable bearing are known to all practical operators of machinery. No excuse whatever for the Ross Blower Bearings heating or running hard or consuming extra power.

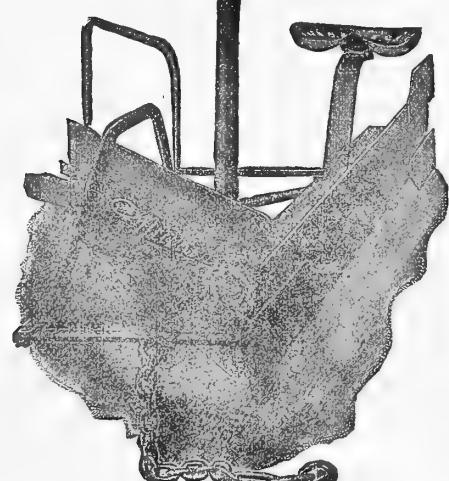
Blower Casing, with Swivel and Tilting Rings. Combination Toothing and Fluted Feed Rollers with Comb Bar Attachment. Steel Shear Bar with Four Cutting Edges. This feature is accountable for the class of work turned out by the Ross. **Start, Stop and Reverse Lever.** This arrangement saves many a break and prevents delays of various natures. **Traveling Feed Table.** Folds up for convenience in moving from place to place and when storing away. **Steel Cutting Cylinder.** This is a point that must not be overlooked. If saving of time and repairs is worth anything, the **ROSS SILO FILLER** is worth double the price of any other. **Steel Blower.** No manufacturer likes to hear of their "Cast Iron" Blowers exploding on large size cylinder type Silo Fillers, but it will occur as long as it is made of Cast Iron. If our example was followed, and the Blower made of SOLID STEEL, like **THE ROSS**, the welfare of Silo users would then be taken care of. **Capacity, Durability, Simplicity in Construction and Quality of Work** have been the principal objects in the construction of **Ross Silo Fillers**. If these claims are not convincing, order the **ROSS SILO FILLER** and give it a trial. The results will be far more convincing than our claims.

Size. No. 18	Knives 4-18 inch	Capacity per Hour on 1- Inch Cut. Ensilage.	Power Required. 12 to 16 H. P.	Weight. 2800 lbs.	Traveling Feed Extra Galv. Two Table and Blower with Blower Shredder		
					30 ft. Pipe and Elbow Pipe, Mounted on Truck. per foot.	Blades Retail. \$403.75	Extra. Retail. \$1.10
No. 22	4-22 inch	15 to 18 tons 18 to 22 tons	15 to 20 H. P.	2900 lbs.	471.75	1.25	\$27.00 30.00



Size. No. 30	Throat Capacity. 38 sq. ins.	Capacity per Hour on 1- Inch Cut. Ensilage.	Power Required. 4 to 6 tons 6 to 8 H. P.	Weight With- out Truck. 800 lbs.	Cutter with Traveling Feed Table and Blower, with 30-ft. Pipe, Includ- ing Elbow, Blower Pipe and Elbow.		
					Pr. with Truck. \$220.50	Pr. without Truck. \$184.59	Pipe, Includ- ing Elbow, Blades and Attachments. \$0.75 \$14.00
No. 40	55 sq. ins.	6 to 8 tons 8 to 10 tons 12 to 18 tons	6 to 8 H. P. 8 to 10 H. P. 12 to 14 H. P.	1250 lbs. 1450 lbs. 1800 lbs.	295.50	.....	1.00 17.75
No. 50	72 sq. ins.				304.35	.....	1.00 17.00
No. 60	85 sq. ins.				337.50	.....	1.00 25.75

Model 20 Reversible
Adjustable



THE Martin Farm Ditcher, Terracer, Gardener

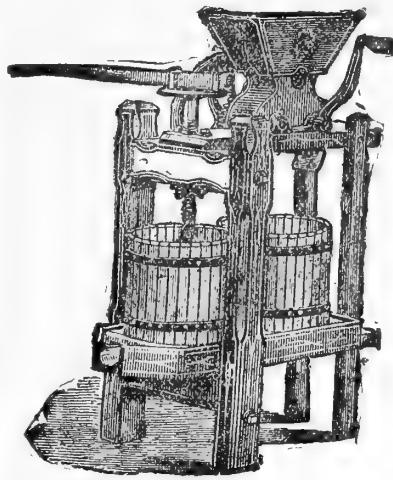
Cuts V-shaped farm ditch for open surface or tile drainage down to four feet. Cleans out old ditches, builds field terraces to stop washing; grades roads, levels, fills. Does the work of 100 men. Two, four or six horses or tractor sizes.

A Machine Every Farmer Should Own

Specifications: Landside 10 inches x $\frac{3}{8}$ inch x $9\frac{1}{2}$ feet; Bessemer steel. Rear guide fins, crucible plow steel. All steel stationary foot-board built in to center of landside. Goose-neck clogless hitch, heavy steel forging extends from draw bar to center of cutting blade. Steel rail handle to control cutting blade. Rolling coulter in front.

WRITE FOR PRICE.

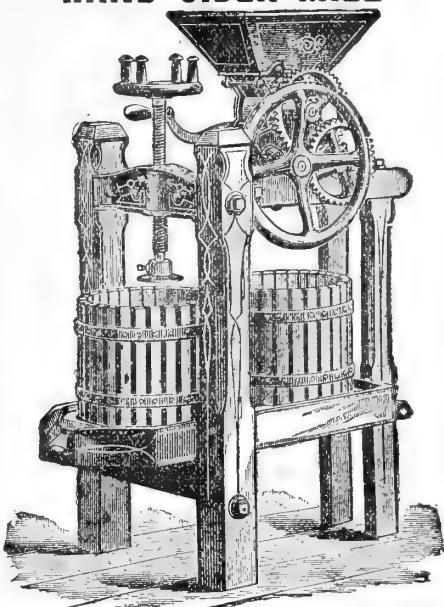
"JUNIOR" DOUBLE CAGE HAND CIDER MILL



This is a small double cage mill of good capacity, and will work in a very satisfactory manner. It is made of hardwood, and, having specially constructed grinders, gives good results. Capacity, 2 to 4 barrels of cider per day. Weight, 220 lbs.

List Price \$45.00
Our Special Price..... 28.25

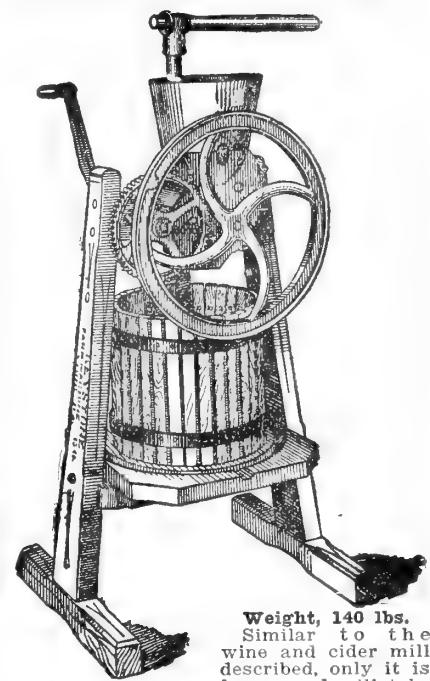
"MEDIUM" DOUBLE CAGE HAND CIDER MILL



Is a good size for family use. It is built with iron beam and heavy gearing, and is perfectly adjustable for all sizes of apples. Capacity, 6 to 8 barrels of cider per day. Weight, 240 lbs.

List Price \$54.00
Our Special Price..... 33.75

BALTIMORE SPECIAL CIDER AND WINE MILL



Weight, 140 lbs.
Similar to the wine and cider mill described, only it is larger and will take

larger apples, and, being a geared mill, will do much more rapid work.
List Price \$34.00
Our Special Price..... 21.25

Wagner Fruit & Lard Press

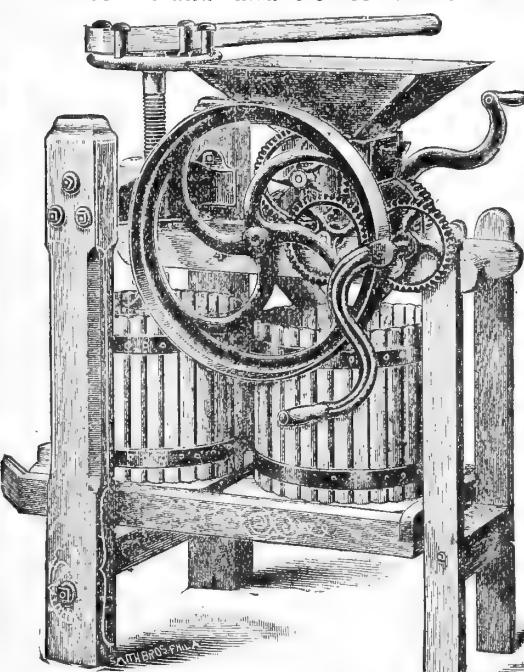


	List Price.	Our Price.
2-Quart.....	\$5.60	\$3.50
4-Quart.....	7.60	3.80
6-Quart.....	8.80	4.40
8-Quart.....	10.40	5.20
Stuffing At- tachment..	2.40	1.50

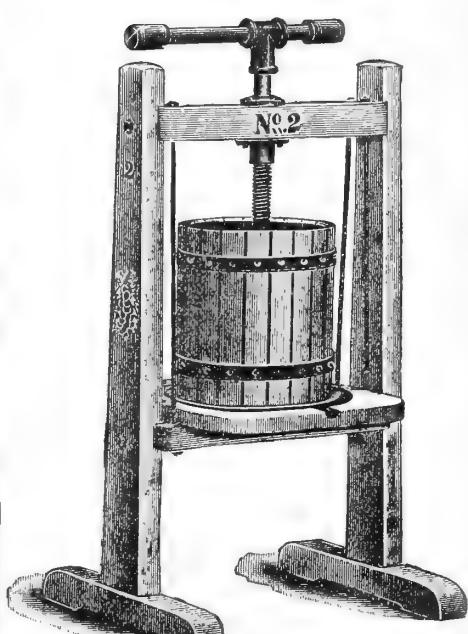
SENIOR.

They have Adjustable Rollers and Feed Regulator and Double Crank. In these Mills the lower rollers are cast with alternate rims and grooves interlocking to draw in the apples. Fruit is mashed between the smooth segments, thoroughly breaking all the cells so that cider is entirely extracted in press. Balance wheels are heavy and mill can be run by power. The mills are very strong. They are made of best material, nicely finished, and are easy to operate. Capacity, 6 to 12 barrels of cider per day. Weight, 390 lbs. List Price, \$75.00; Our Special Price, \$47.50.

"Senior" Hand and Power Cider Mill

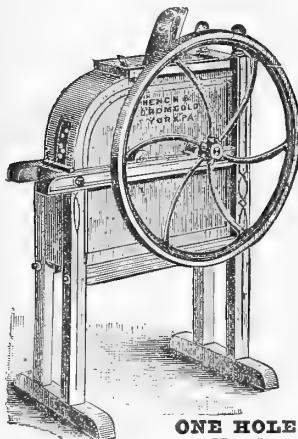


BERRY PRESS



	List Price.	Our Special Price.
No. 1, weight 50 lbs.....	\$13.50	\$8.25
No. 2, weight 65 lbs.....	15.50	9.30
No. 3, weight 90 lbs.....	26.00	15.60

THE BALTIMORE SHELLERS

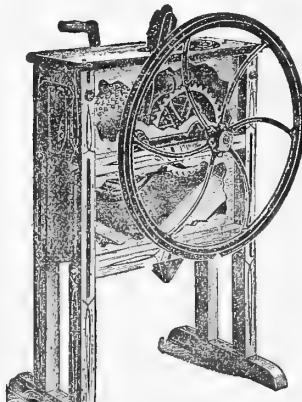


ONE HOLE.

No. 3.

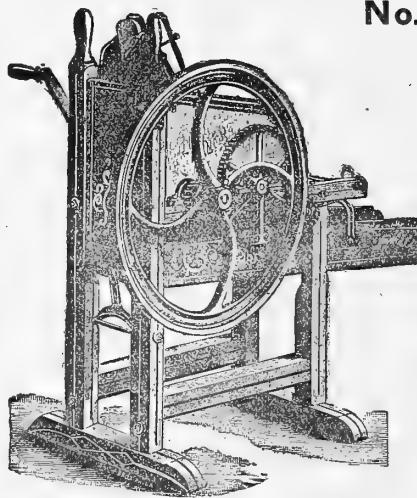
Separates corn and cob. Fan will clean corn for market. Corn discharged beneath Sheller, cobs at end. Easily adjusted for large or small ears. Capacity, 125 bushels a day. 130 pounds.

Plain, List Price, \$25.00;
Our Special Price, \$16.00.
With Fan, List Price, \$29.00;
Our Special Price, \$18.50.

NO. 4.
ONE HOLE.

Screens corn; side delivery; light running; strong, steel shafts. Capacity, 125 bushels a day. 130 pounds.

Plain, List Price, \$25.00;
Our Special Price, \$16.00.



No. 20 Double Spout

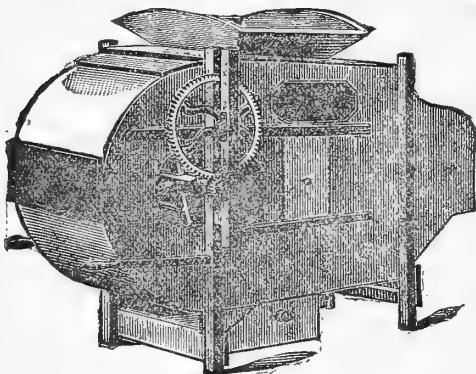
This sheller is built very strong from the best materials, and has a combination flywheel and pulley.

Hand and power, with shaker belt and flywheel. Capacity, 200 bushels per day. Capacity by power, 500 to 600 bushels.

Weight, 300 lbs.

No. 20, with shaker, List Price, \$57.50; Our Special Price, \$35.00.

BALTIMORE IMPROVED GRAIN FAN



Will clean from 60 to 100 bushels per hour. Made of best material and finished in a neat and tasty manner.

List Price, \$64.00.

Our Special Price, \$40.00.

Sieves, List Price, each, \$3.00.

Retail, \$2.00

NO. 20 RED CHIEF GRINDING MILL

COMBINED HAND AND POWER MILL.

No. 20—Power Mill for two-horse engine; tight and loose pulley, best of bronze boxes and cold rolled steel axle, capacity 10 to 20 bushels per day. Has no equal. List Price, \$32.00; Our Special Price, \$20.00.

Corn Sheller Attachment, shells the corn and grinds at the same time, extra. List Price, \$14.40; Our Special Price, \$9.00.

Table Meal Separator, makes fine table meal while grinding stock feed, extra. List Price, \$10.40; Our Special Price, \$6.50.



No. 20

"BLACK HAWK"

CORN SHELLER

Weight, 14 lbs.
Shells Fast, Clean
and Easily.

Black Hawk is simple, easily adjusted and will shell clean all kinds of field corn.

List Price,
\$5.60 Each.

Our
Special
Price,
Each,
\$3.50.



1903

BLACKHAWK
CORN SHELLER.

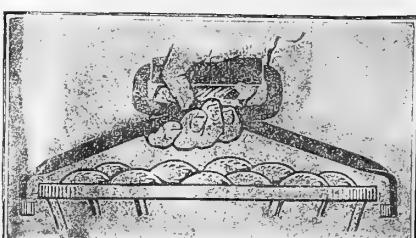
RED CHIEF CORN SHELLER



adjusts itself to any size ear.

List Price, each, \$4.40; Our Special Price,
each, \$2.75. Weight, 12 lbs.

Removable Basket Handles



This sheller is guaranteed to do good work. It is heavy in construction, with patent oval-shaped teeth, which are so arranged to shell more rapidly and avoid injuring the grain, thus making it safe for shelling seed corn. Ad-

These handles are of great assistance in handling fruit and vegetable baskets.

They are automatic in operation, and the grip is sure. Made from high-grade steel, and will last a lifetime. Handles three times as many baskets in the same time.

List Price, 50c.; Our Special Price, 30c.

GRINDING MILLS

ROSS "IMPROVED" SUPERIOR, NO. 10

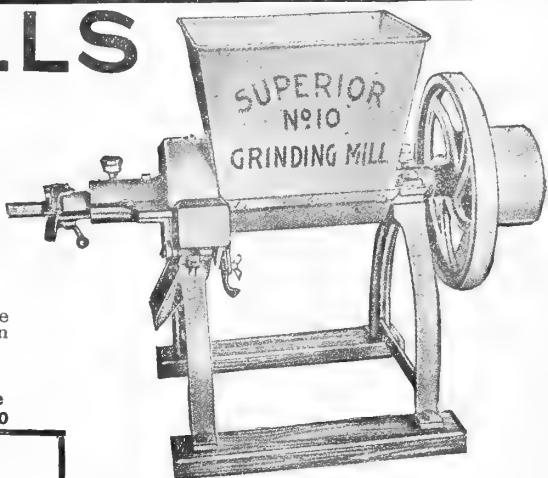
The Ross No. 10 Grinding Mill is constructed entirely of metal—that is to say, Iron and Steel. As for its durability, same can be imagined by considering the lasting qualities of Iron and Steel. Its constructive features are vouched for by our 69 years of Manufacturing Experience.

Equipped with single Grinding Burrs 6½ inches in diameter. The Grinding Burrs are pivoted and self-conforming, which insures Uniform form Grinding, because the Burrs grind at every point on Surface of Burr. This feature is found only on the ROSS "Improved" Superior.

Equipped with quick release and accurate adjustment for the Burrs. The Burrs can be changed or removed without taking entire Mill apart.

This No. 10 Mill will grind Wheat, Barley, Shelled Corn, Oats, Rye, alone or mixed Ear Corn and Cob without husks, fine or coarse, depending on kind of Grinding Burrs used.

H. P.	Re- quired	Speed R. P. M.	Small Grain	Ear Corn	Size of Pulley	Wgt.	Price
No. 10	2 to 4	350 to 500	8 to 20 bu.	7 to 14 bu.	8 x 5 in.	185 lbs.	\$38.00



ROSS "IMPROVED" DUPLEX NO. 40

The No. 40 Ross "Improved" Superior Duplex Grinder is likewise constructed of Iron and Steel.

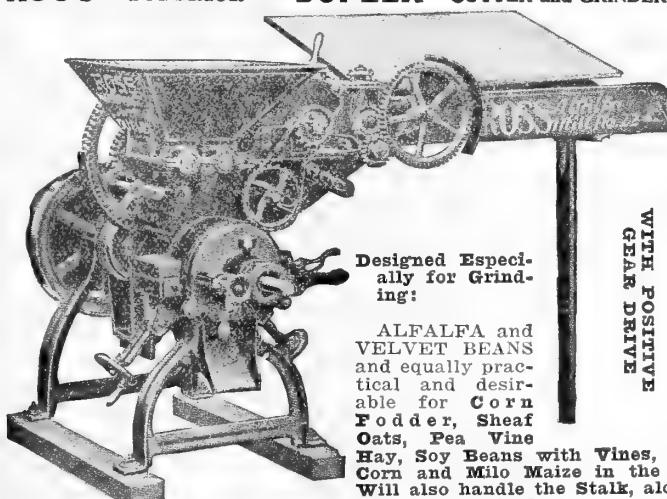
Equipped with Ross "Improved" Pivoted and Adjustable and Self-Conforming "Duplex" Grinding Burrs—6 inches in diameter. "Duplex" means double or two complete sets of grinders consequently this No. 40 in capacity is equal to any Single Burr Mill having 12-inch diameter Burrs.

For uniform grinding and high quality work, the No. 40 cannot be equalled let alone excelled. This is due to Pivoted Adjustable and Self-Conforming Burrs, which insures grinding the full surface of the "Duplex" Burr instead of grinding here and there as is the case on Mills with Single Non-Conforming and Non-Adjustable Burrs. Instead of using a slide for regulating material into the crusher, the Ross No. 40 is equipped with double slides at entrance to the Burrs, which puts the regulation where it belongs.

For grinding Corn on the Cob without husks, as well as Wheat, Barley, Shelled Corn, Oats and Rye, the No. 40 will prove most desirable. Small grain can be handled alone or mixed.

H. P.	Re- quired	Speed R. P. M.	Small Grain	Ear Corn	Size of Pulley	Wgt.	Price
No. 40	4 to 6	400 to 600	10 to 20 bu.	8 to 15 bu.	10 x 6 in.	250 lbs.	\$54.00

ROSS "IMPROVED" SUPERIOR DUPLEX "COMBINATION" CUTTER and GRINDER



WITH POSITIVE
GEAR DRIVE

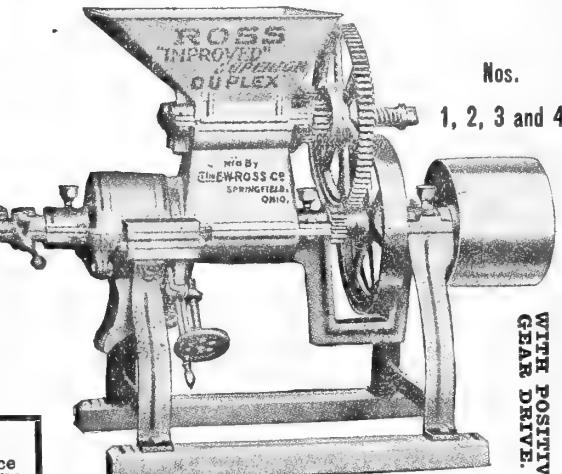
Designed Espe-
cially for Grind-
ing:

ALFALFA and
VELVET BEANS
and equally practi-
cal and desir-
able for CORN
Fodder, Sheaf
Oats, Pea Vine
Hay, Soy Beans with Vines, Kafir
Corn and Milo Maize in the head.
Will also handle the Stalk, alone or
mixed, as desired.

Size of Mill	H. P. Required	Speed R. P. M.	Alfalfa Meal Per Day	Size of Pulley	Wgt.	Price
No. 22	8 to 10	650 to 750	4000 to 8000 lbs.	10 x 9 in.	700 lbs.	\$161.75

Size of Mill	H. P. Required	Speed R. P. M.	Small Grain	Ear Corn	Size of Pulley	Weight	Price
No. 1	4 to 6	600 to 775	12 to 25 bu.	8 to 18 bu.	8 x 6 in.	360 lbs.	\$72.25
No. 2	8 to 10	650 to 775	25 to 35 bu.	18 to 30 bu.	12 x 9 in.	525 lbs.	96.00
No. 3	10 to 15	650 to 800	35 to 50 bu.	30 to 40 bu.	14 x 9 in.	675 lbs.	117.50
No. 4	15 to 20	650 to 850	50 to 75 bu.	40 to 65 bu.	14 x 9 in.	850 lbs.	155.50

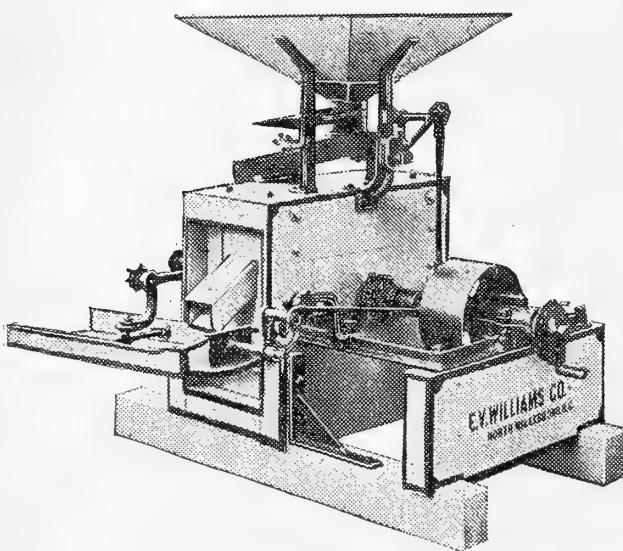
ROSS "Improved" Superior DUPLEX



Nos.

1, 2, 3 and 4

WITH POSITIVE
GEAR DRIVE.



"Williams" Advance Burr Mill

The cut shows the general design of the "Williams" Advance Burr Mill. Limited space prevents us from giving a full description, but we will gladly send a special circular giving full description and information.

The Mill Body is constructed in the most workmanlike manner, from the choicest selected forest timber, all well dried and very heavy.

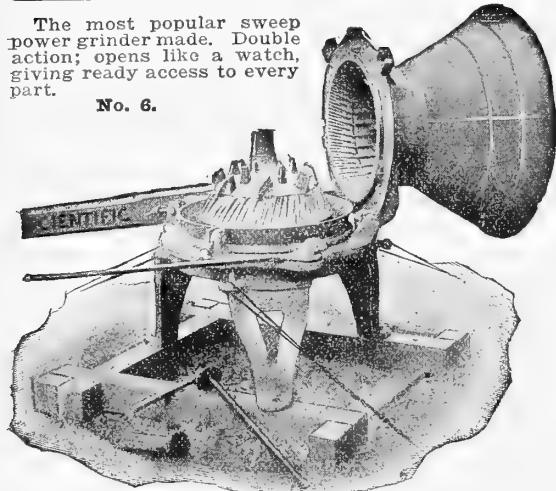
The Burr Stones used in these mills are the very best Burr stock that can be secured, they are well mated and will give great service without requiring frequent dressing. They are mounted on large steel spindles and perfectly trued and balanced, and are so arranged that they cannot be set too close together, and will not drift together when the grain runs out.

The grain hopper is large, with an improved feeding arrangement.

The high speed cleaning fan, latest improved folding bolter, the latest and most perfect burr adjustment, makes this the lightest running and nicest appearing mill on the market.

The most popular sweep power grinder made. Double action; opens like a watch, giving ready access to every part.

No. 6.



Scientific No. 6 New Geared Sweep Mill

Gearing consists of three gear pinions, which revolve on independent chilled studs. Mill grinds all grains, but is especially effective and rapid on ear corn, and double-action feature, which is applied to these mills, prevents cobs lodging in hopper at end of a run. Its capacity is 10 to 15 bushels per hour. Weight of mill, 700 pounds. Price of Mill, with extra plates, \$48.00.

Scientific No. 5 Triple-Geared Sweep Mill

A triple-gearred double-action sweep mill, similar in principle to the No. 6, but about one-third less in capacity, and instead of being provided with baskets for catching ground product, it is mounted on a heavy box, in which the grain is caught. The upper half of the mill does not open on a hinge like the No. 6. Well adapted to grinding ear corn or shelled grain, runs light and does splendid work; weight about 550 pounds. Price, with one set of Gringing Plates, \$40.00.

Cut Raw-Hide Belt Lacing



	List Price.
5/8-inch, per 10\$ feet.....	\$3.75
1/2-inch, per 100 feet.....	5.50
5/8-inch, per 100 feet.....	6.50
3/4-inch, per 100 feet.....	7.50

	Retail Price.
5/8-inch, per 10\$ feet.....	\$3.00
1/2-inch, per 100 feet.....	4.40
5/8-inch, per 100 feet.....	5.20
3/4-inch, per 100 feet.....	6.00

Size of Burns.	Weight.	Speed	Horse- power.	Capacity per Hour.	Size of Pulley.	List Price.	Write for Special Price.
No. 14"-B	825	900	3 to 6	4 to 8	10x5	\$118.00	
No. 16"-B	850	800	5 to 7	6 to 10	12x6	138.00	
No. 20"-B	1050	750	6 to 12	8 to 14	12x6	168.00	
No. 24"-B	1400	700	10 to 15	12 to 20	14x6	212.00	
No. 30"-B	2000	550	12 to 25	14 to 30	16x8	278.00	*



Alfalfa Belt

Alfalfa water-proof belting is a belt woven especially with a view of obtaining great tensile strength. Nothing but the finest long staple cotton is used.

We have been able to develop by the use of the best raw material obtainable, and by a direct system of impregnation a fabric belt, which has a breaking strain of 6,730 pounds per square inch, which is equal to, or not in excess of, the breaking strain of any belt that has been produced.

	List.	Our Price.
2-inch, 4-ply.....	\$0.40 ft.	28c. ft.
3-inch, 4-ply.....	.54 ft.	38c. ft.
4-inch, 4-ply.....	.70 ft.	49c. ft.
5-inch, 5-ply.....	1.08 ft.	76c. ft.
6-inch, 5-ply.....	1.24 ft.	87c. ft.

Gandy Canvas Stitched Belting

Made by the most improved machinery from cotton duck manufactured especially for the purpose.

2-in., 4-ply.....	39c. ft.	6-in., 4-ply.....	\$1.05 ft.
3-in., 4-ply.....	.57c. ft.	6-in., 6-ply.....	1.58 ft.
4-in., 4-ply.....	.74c. ft.	8-in., 4-ply.....	1.35 ft.
5-in., 4-ply.....	.90c. ft.	8-in., 6-ply.....	2.03 ft.

Prices of Other Widths and Plies to Order.

When Endless Belts are wanted add 7 feet extra for lapping.

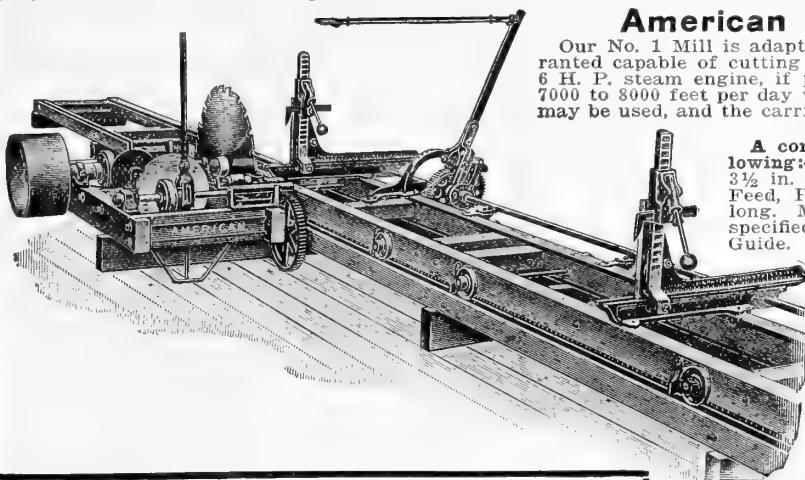
Rubber Belting

	List.	Retail.		List.	Retail.
3-in., 3-ply..	.55c. ft.	38c. ft.	5-in., 3-ply..	\$0.87 ft.	61c. ft.
3-in., 4-ply..	.65c. ft.	45c. ft.	5-in., 4-ply..	1.02 ft.	72c. ft.
4-in., 3-ply..	.70c. ft.	49c. ft.	6-in., 4-ply..	1.22 ft.	86c. ft.
4-in., 4-ply..	.82c. ft.	57c. ft.			Special Prices for Cash.

Larger and smaller sizes on application.

The American Variable Friction Feed Sawmills

American Sawmills are recognized as embodying superior design, the most advanced and up-to-date ideas, superior workmanship, and, in short, they are outfits which have been carefully thought out by designers of wide experience for the purpose of giving to sawmill operators the most practical mills possible.



American No. 1 Standard Sawmill

Our No. 1 Mill is adapted to any power from 6 to 15 H. P. It is warranted capable of cutting 2000 feet of board lumber per day with a good 6 H. P. steam engine, if properly handled, and is capable of turning out 7000 to 8000 feet per day with a 15 H. P. engine. Any size up to 52 inches may be used, and the carriage will carry logs up to 36 inches diameter.

A complete Standard No. 1 Mill consists of the following:—**HUSK FRAME** 7 feet by 3 inches, built of $\frac{3}{4}$ in. by $\frac{7}{8}$ in. timbers, fitted with Variable Friction Feed, Polished Steel Mandrel $2\frac{3}{16}$ in. by 4 ft. 4 in. long, Mandrel Pulley, 20 in. by 10 in. (unless otherwise specified); also Board Roll, Spreader Wheel and Saw Guide.

CARRIAGE 16 ft. long, 26 in. wide, built of timbers $3\frac{1}{2}$ in. by $\frac{5}{8}$ in., having Feed Rack 22 ft. long. Four Trucks with 6 in. wheels and $1\frac{1}{4}$ in. steel axles. 40 ft. of "V" and Flat Rolled Steel Track, fitted to way timbers framed up in sections. Two Head-blocks, opening 34 inches, with Champion Duplex Dogs. "Ideal" Set Works, with Quick Recesser and 14 ft. of polished steel Set Shaft; also Belt Tightener, foundation bolts, cant hook, oil can and wrenches. **Saw is extra, according to size and style selected.** Weight of mill as above, 2800 lbs. (If way timbers are not wanted, deduct 450 lbs.)

No. 1—Standard Saw Mill, with rack and pinion drive, without saw. List Price, **Our Special Price,**

With Wire Cable Carriage Drive, without saw. **List Price,**

Our Special Price, If track with way timbers are not wanted, deduct from List Price \$20.00, from **Our Special Price,**

If Belt Tightener is not wanted, deduct from List Price \$15.50; from **Our Special Price,**

Write for catalog of larger sizes.

AMERICAN MILL SAWS.

Our Special

48-inch Solid Tooth. List Price, **Our Special**

Price

50-inch Solid Tooth. List Price, **Our Special**

Price

48-inch Inserted Tooth. List Price, **Our Special**

Price

50-inch Inserted Tooth. List Price, **Our Special**

Price

Our Spe-

Our Spe-

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Our Spe-

'UP-TO-DATE' SHINGLE MACHINE

It will make shingles, heading, box boards, crate slats, etc., equally well. Carriage is very substantial, and provided with a strong iron yoke that will admit saws up to 36 inches in

diameter; 24-inch saw is regularly furnished. Can be used either as hand power or power feed machine. When ordered an edger and knot saw with 8-inch saw and a convenient gauge are furnished. Capacity from 3,000 to 10,000 shingles per day, depending upon power, character of work and expertness of operator. Weight with edger, 625 pounds; power required, 4 to 8 H. P. Complete with edger and 24-inch shingle saw and 8-inch edging saw. **List Price,** **Our Special Price,** **Saw, List Price,** Without edger, but with 24-inch shingle

With 5 H. P. Four-Cycle Gasoline Engine and Magneto built in, including Hollow-Chisel Mortiser and Boring Attachment, with Jig Saw.....

Same without Engine and Inside Belt.....

Same with Countershaft and Inside Belt, without Engine.....

The following can be left off and prices deducted accordingly:

Hollow Chisel Mortiser-Boring Attachment, if not wanted, deduct.....

Jig Saw, if not wanted, deduct.....

Hollow Chisel Mortiser only (leaving on plain Borer), deduct.....

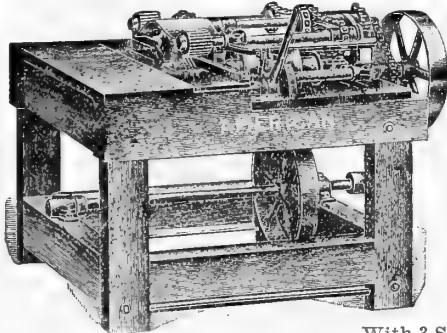
Cant Hooks, No. 318B— $2\frac{1}{2}$ in. x 4 ft. Price

Cant Hooks, No. 318B— $2\frac{1}{2}$ in. x $4\frac{1}{2}$ ft. Price

Feavies, No. 9— $2\frac{3}{4}$ in. x 5 ft. Price

American Gang Lath Mill

Can be furnished as a lath mill only as shown by illustration or as combined lath mill and bolter. The best machine of the kind on the market, possessing valuable features not found on any other make. It is adapted to cutting lath slats or crate stock of any width from $\frac{1}{2}$ inch to 3 inches of various thickness; also small dimension stock from $\frac{1}{2}$ by $\frac{1}{2}$ inch up to 3 inches by 3 inches.



Three Saws furnished, unless otherwise ordered, but can be fitted to carry six; capacity 30,000 to 50,000 laths per day.

With 3 Saws. With 4 Saws.

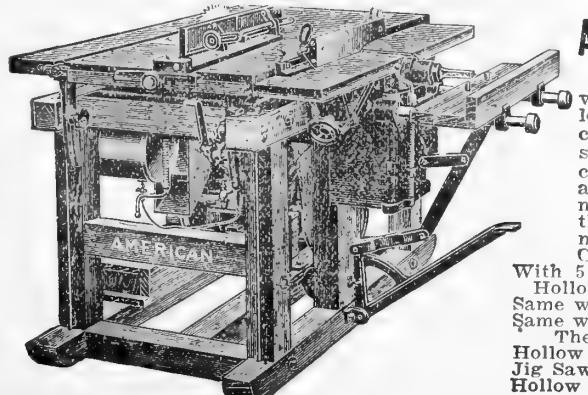
List Price.....

Our Price..... Combined Lath Machine and Bolter.

List Price.....

Our Price..... Special Feed for Slats and Dimension Stock.

List Price..... Our Price



American Contractor's Portable Variety Wood Worker

A time-saver; a money-maker. Take it right to the job, and do your work on the job, as you want it, when you want it. Built for work, and lots of it. The saw gauge and jointer fence are instantly removable for cutting off long lumber. What it is—a rip saw, a cut-off saw, a mitre saw, a scroll saw, a Dado machine, a gaining machine, a grooving machine, a rabbetting machine, a tenoning machine, a jointer or planer, a mortising machine, a matcher, a molder, a sander, a hollow chisel mortiser. These can be furnished with gasoline engine built in, making them self-contained, or where electric current is available with electric motor built in. Net prices, f. o. b. factory. Complete with Hollow Chisel Mortiser, Boring Attachment and Jig Saw.

With 5 H. P. Four-Cycle Gasoline Engine and Magneto built in, including Hollow-Chisel Mortiser and Boring Attachment, with Jig Saw.....

Same without Engine and Inside Belt.....

Same with Countershaft and Inside Belt, without Engine.....

The following can be left off and prices deducted accordingly:

Hollow Chisel Mortiser-Boring Attachment, if not wanted, deduct.....

Jig Saw, if not wanted, deduct.....

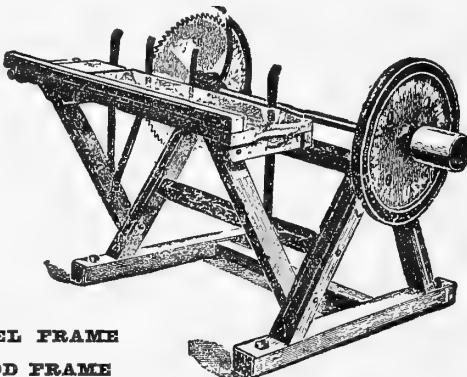
Hollow Chisel Mortiser only (leaving on plain Borer), deduct.....

APPLETON WOOD SAWS

Appleton Saw Frames are made heavy of hard wood, are mortised and tenoned throughout and fitted with patent dust-proof self-aligning babbitt boxes. They are celebrated for their rigidity and durability. Special circular on application.

Common Sense Tilt-ing Table Wood Saw

The most popular style for sawing cord wood. Pulley 6 x 6 inches. Speed, 1000 to 1500 R. P. M. Weight, 208 lbs.



No. 1, STEEL FRAME

No. 2, WOOD FRAME

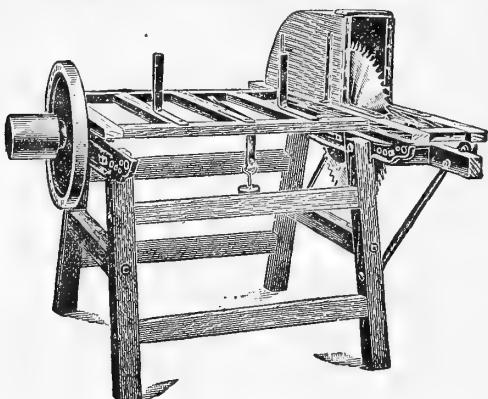
Appleton Common-Sense Saw

No. 1, Steel Frame

Without Saw Blade....	\$42.00	With out Saw Blade....	\$43.00
With 22-inch Saw.....	49.00	With 22-inch Saw.....	50.00
With 24-inch Saw.....	50.10	With 24-inch Saw.....	51.10
With 26-inch Saw.....	51.60	With 26-inch Saw.....	52.60
With 28-inch Saw.....	53.10	With 28-inch Saw.....	54.10
With 30-inch Saw.....	54.60	With 30-inch Saw.....	55.60

No. 2, Wood Frame

SLIDING TABLE SAW No. 7



Without Saw Blade....	\$50.00	With 26-inch Saw.....	\$59.60
With 22-inch Saw.....	57.00	With 28-inch Saw.....	61.10
With 24-inch Saw.....	58.10	With 30-inch Saw.....	62.60

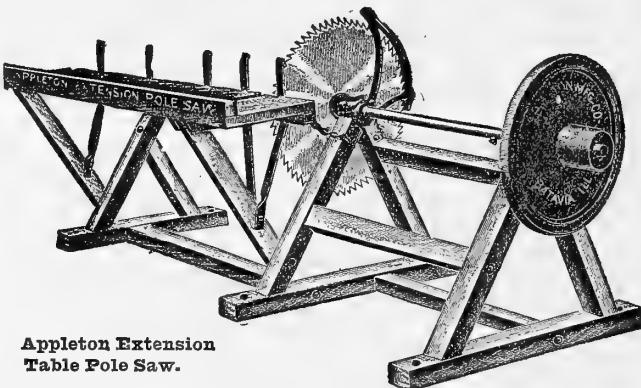
GRITCO CIRCULAR SAWS



These Saws are the result of over 50 years' study and experience. Absolutely the best steel is invariably used and each blade is given a tough, even temper and perfect tension, all of which is essential to the successful running of the saw. The workmanship of these blades is unequalled. The prices given are for saws sharpened and set. We send blades with 1 1/2-inch hole on 24-inch and 26-inch, and 1 1/2-inch on 28-inch and 30-inch.

	List Price.	Retail Price.
22-inch, No. 12 gauge.....	\$11.50	\$7.00
24-inch, No. 11 gauge.....	13.50	8.10
26-inch, No. 11 gauge.....	16.00	9.60
28-inch, No. 10 gauge.....	18.50	11.10
30-inch, No. 10 gauge.....	21.00	12.60

EXTENSION TABLE POLE SAWS



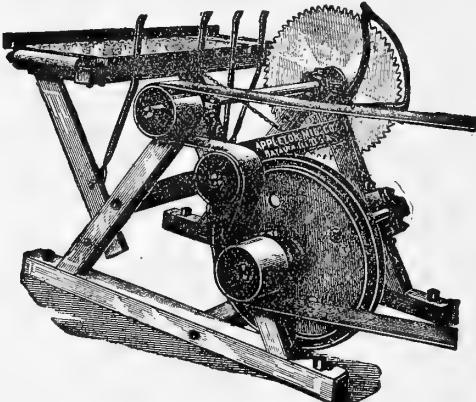
Appleton Extension Table Pole Saw.

The table is so arranged as to extend nearly five feet beyond the saw blade. It makes a highly satisfactory combined pole and cord-wood saw, because the length and arrangement of the table is such as to enable the operator to handle long poles about as easily and rapidly as cord wood. To facilitate handling a roller is placed at one end of the table. Weight, 354 pounds. No. 3, Steel Frame. No. 4, Wood Frame.

Steel and Wood Frame Same Piece.

Without Saw	\$44.50	With 28-inch Saw.....	\$55.60
With 24-inch Saw.....	52.60	With 30-inch Saw.....	57.10
With 26-inch Saw.....	54.10		

NEW STYLE TILTING TABLE POLE SAW



With this style of saw frame the operator can saw short and long wood with facility, and can saw the longest poles into cord wood, stove wood, or any desired lengths, because the balance wheel is under the frame where it cannot interfere with the longest pole. There is a roller at one end of the table which is a great help in getting long poles on the table.

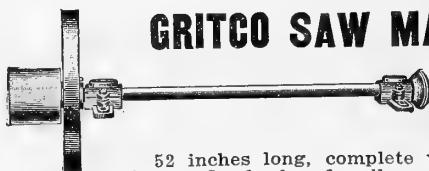
This style saw requires a higher speed than the others. To obtain the best results a 5-inch or 6-inch belt should be used, and when sawing a larger stick than 6 inches through, at least 6 horse-power should be used. Weight, 403 pounds.

No. 5, Steel Frame. No. 6, Wood Frame.

Steel and Wood Frame Same Piece.

Without Saw Blade....	\$57.00	With 28-inch Saw.....	\$68.10
With 24-inch Saw.....	65.10	With 30-inch Saw.....	69.60
With 26-inch Saw.....	66.60		

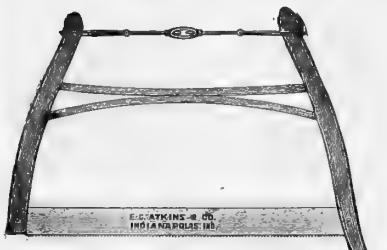
GRITCO SAW MANDRELS



52 inches long, complete with large babbitt boxes, flywheel and pulley. Price, \$22.50.

ALL PRICES IN CATALOG SUBJECT TO CHANGE
WITHOUT NOTICE

ATKINS' CELEBRATED SAWS



WOOD SAWS

No. 617—Wood brace frame; single rivet; painted red; plain tooth; breasted blade; $2\frac{1}{4}$ inches wide. Our Special Price, \$1.30.

No. 523—Wood brace frame; single rivet; selected stock; high finish; painted red; jumbo rod tinned; Tuttle tooth; breasted blade; $2\frac{1}{4}$ inches wide. Our Special Price, \$1.60.

No. 823—Cantilever frame; selected maple stock; fine natural wood finish; jumbo rod tinned; Tuttle tooth blade breasted, $2\frac{1}{4}$ inches wide. Our Special Price, \$1.75.

Wood Saw Bucks, 75c.

HAND SAW.



HAND SAWS.

No. 38—American straight back; plate on handle. Our Special Price, \$1.40 each.

No. 59—Sheffield Saw Works. Skew back; beech handle; polished edge, 7 to 9 points. Our Special Price, \$2.00 each.

No. 54—Silver steel; beech handle; straight back; polished edge, 7 to 9 points. Our Special Price, \$2.75 each.

No. 53—Silver steel, skew back; carved and polished apple handle, with Atkins' perfection handle. Our Special Price, \$3.25 each. Special Prices in Quantities.

THE DESHLER R. F. D. Mail Box

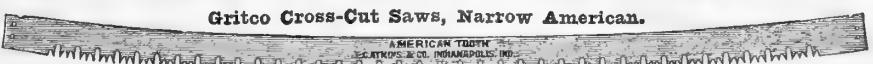


Will last a lifetime and sells at sight. Made of 20-gauge galvanized iron, painted aluminum, absolutely storm-proof, perfect in operation, positive locking signal in either position—up or down, weather-proof slot in door for depositing the mail without unlocking the box. No rivets or bolts required to set it up.

When the patron nails the box on a post this fastens the box so that it cannot be taken apart.

One half-dozen to a crate. Shipping weight, 72 pounds to the dozen.

List Price, \$2.90 each. Our Special Price, \$1.75 each.



Gritco Cross-Cut Saws, Narrow American.

AMERICAN TOOTH

ATKINS & CO., INDIANAPOLIS, IND.

NARROW AMERICAN.

5 ft.—Our Special Price.....	\$2.75
5½ ft.—Our Special Price.....	3.05
6 ft.—Our Special Price.....	3.30

Special Prices in Quantities.

Price of Cross-Cut Saws Is Without Handle. Climax Handles, 25c. per Pair.



GRITCO CROSS-CUT SAWS, WIDE BACK, AMERICAN.

Wide American Tooth, Silver Steel, 5, 5½ and 6 Feet. Gauge, 14x16.

5 ft.—Our Special Price.....	\$5.10
5½ ft.—Our Special Price.....	5.65
6 ft.—Our Special Price.....	6.15

Tuttle Tooth, Cast Steel. Gauge, 14x16.

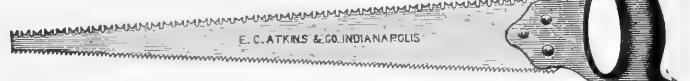
5 ft.—Our Special Price.....	\$4.45
5½ ft.—Our Special Price.....	4.90
6 ft.—Our Special Price.....	5.30

Special Prices in Quantities. Price of Cross-Cut Saws Is Without Handle.

ONE MAN CROSS-CUT SAW AMERICAN TOOTH.

3 feet.....	\$3.15
3½ feet.....	3.65
4 feet.....	4.25

PRUNING SAW.



PRUNING SAWS.

No. 2 Double. No. 2. No. 2 Single.

16-inch.....	\$0.90	16-inch.....	\$1.00
18-inch.....	1.00	18-inch.....	1.10
20-inch.....	1.10	20-inch.....	1.20

LOCKS

All These Locks Are
Tested Before
Leaving Factory



	List Price, Dozen.	Special Price, Each.
4031—Pressed steel, brass plated, with 2 keys.....	\$3.10	\$.20
6160—Green enameled, with 2 keys.....	4.80	.30
4012—Wrought metal, self-locking, with 2 keys.....	3.60	.25
1903—High grade bronze, with 2 flat keys.....	7.20	.40
550—Heavy nickel-plated, with 2 keys.....	5.25	.30
1902—Bronze metal case, with 2 keys.....	9.50	.50
4067—Seamless steel shell, with 2 keys.....	6.00	.40
16022—Wrought steel, six levers, with 2 keys.....	6.50	.45
1904—Highest grade brass case, with 2 keys.....	11.00	.60
5057—Wrought bronze, three levers, with 2 keys.....	9.75	.55
16034—Wrought steel, eight levers, with 2 double fitted drilled barrel keys.....	12.50	.75
1484—All bronze, smooth finish, with 2 keys.....	13.80	.80
1610—Heavy all brass, with chain and 2 hand-fitted keys.....	21.00	1.25
9902—Mail lock, no chain.....	9.75	.50
9902—Mail lock, with chain.....	11.00	.60

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MODEL 12

STAR WINDMILLS AND TOWERS

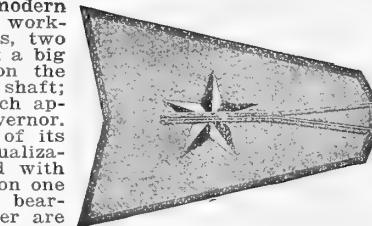
The Model 12 Star Windmill is of the most modern type of windmill construction. The material and workmanship are the very best. It has two pitmans, two heavy and strong gears and two steel wrist pins; a big one-piece main frame which sets squarely upon the tower; extra long cold-rolled, polished steel drive shaft; shock absorber, swinging cone-shaped brake which applies gently and effectively, and automatic governor. The Star is responsive in light winds because of its perfect alignment, direct center lift, perfect equalization of load and absence of friction. Equipped with No-Oil-Ems Bearings guaranteed to run one year on one oiling, which insure very easy running, and the bearings will last indefinitely. The wheel and rudder are heavily galvanized.

MODEL 12—STAR GALVANIZED STEEL BACK-GEARED WINDMILLS

Size, Feet	Stroke, Inches	Weight, Lbs.
8	4, 6, 8	425
10	6, 8, 10	660
12	6, 9, 12	1040

STAR GALVANIZED STEEL FOUR-POST TOWERS

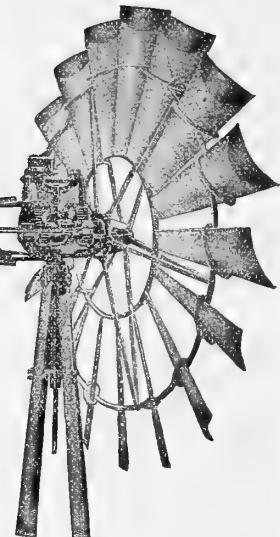
Towers have adjustable round brace rods by which they can be adjusted and the towers kept straight and rigid.



NO. 2 FOR 8 AND 10-FOOT WINDMILLS

Height, Feet	Weight, Lbs.
30	528
35	615
40	756
45	862
50	1036
60	1405
70	1925

Prices on Application.



Star Galvanized Steel Suburban Towers

Star Suburban Towers come complete with anchor posts, plates and heavy steel supports for tank. Tower is of the same construction as the regular windmill towers, except the portion below the tank and the anchor posts are made of heavier material on account of supporting tank.

FOR 8 OR 10-FOOT WINDMILLS

No.	Height of Tower, Feet	Elevation of Tank, Feet	Capacity of Cypress Tank, Bbls.	Weight of Tower, Lbs.
T 2	30	10	21	753
T 3	35	15	21	876
T 4	40	20	21	1001
T 5	45	25	21	1186
T 6	50	30	21	1344
T 8	60	40	21	1774
T14	40	15	40	1126
T16	50	25	40	1495
T18	60	35	40	1958
T26	50	20	60	1508
T28	60	30	60	1970

BAKER WINDMILLS AND TOWERS

Perhaps the most attractive feature of the BAKER WINDMILL is the fact that it is the only Windmill made which revolves on the shaft with the weight of the wheel over the center of the bearing. It is very light running and hub is provided with an oil well which simplifies the lubrication.

BAKER WINDMILL TOWERS are very strong and rigid. The flat braces are accurately punched at the factory and there is no chance to put the tower up with the wrong tension. This is a particularly good feature.

8-FOOT BAKER WINDMILL.

10-FOOT BAKER WINDMILL.

Four-post Galvanized Angle Steel Windmill Towers

No. 1, FOR 8-FOOT MILL.

Height.....	30 feet.
Height.....	40 feet.
Height.....	50 feet.

No. 2, FOR 10-FOOT MILL.

Height.....	60 feet.
Height.....	70 feet.

PRICES ON APPLICATION.

GALVANIZED STEEL STORAGE TANKS

All dimensions given are measured outside over all. All List Prices and weights based on Tanks and Troughs made from No. 20 Gauge Galvanized Sheets. For No. 18 Gauge Tanks add 30 per cent. to No. 20 Gauge Lists. For No. 16 Gauge Tanks add 60 per cent. to No. 20 Gauge Lists. Every tank carefully inspected before leaving factory to insure tank being water tight.

ROUND-END GALVANIZED TANKS.

No.	Width, Ft.	Height, Ft.	Length, Ft.	Capacity, Gals.	Weight, Lbs.	Retail.
101.....	2	2	4	91	74	\$16.20
102.....	2	2	5	117	88	18.90
103.....	2	2	6	144	102	20.70
L.....	2 1/2	2	5	145	93	21.60
M.....	2 1/2	2	6	178	110	23.40
N.....	3	2	6	213	134	27.00
108.....	2 1/2	2	8	245	141	28.80
111.....	3	2	8	295	156	30.60
112.....	3	2	10	384	185	35.10
116.....	4	2	8	386	169	33.30
117.....	4	2	10	496	203	41.40



ROUND GALVANIZED TANKS.

No.	Diam., Ft.	Height, Ft.	Capacity, Gals.	Weight, Lbs.	Retail.
1.....	3	2	91	69	\$16.20
2.....	4	2	166	97	19.80
3.....	4	2 1/2	215	106	22.50
4.....	4	3	254	115	25.20
5.....	4	4	338	145	29.70
6.....	4	5	423	168	34.20
7.....	4	6	508	191	39.60
8.....	5	2 1/2	342	141	28.80
9.....	5	3	411	154	31.50
10.....	5	4	548	181	37.80
13.....	5	5	675	211	45.95

Prices on larger sizes and special tanks quoted on application.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

Standard Steel Substructures for Tanks

FOUR-POST SINGLE-ANGLE STEEL SUBSTRUCTURES INCLUDING CAP CHANNELS ONLY AND FOUNDATION RODS AND PLATES.

The single-angle corner posts are spliced together by means of plate connections, to which the struts are also fastened, making a two-bolt connection for each end of the strut. The brace rods are held securely to the corner posts by means of special drop-forged eye-nuts which have right and left-hand threads, facilitating the adjusting and truing of structure. We also furnish substructures with flat-punched braces. The corner posts are anchored at the base by heavy rods or bolts built into the foundation piers and extending up through the base plates, upon which the ends of the angles bear directly.



These storage tanks are made of carefully selected red gulf cypress. We avoid the use of upland or cheaper grade of cypress, and in getting tanks from us you can rely upon high-grade material and workmanship. Tanks are made with round hoops and draw lugs, which give more strength and which do not rust like flat hoops.

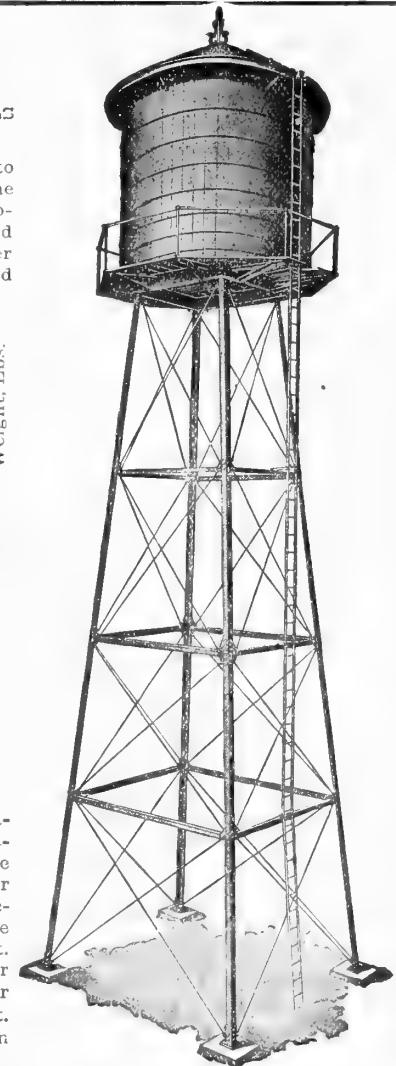


Height	For 6x6-ft. Tank 1053 Gals. Weight, Lbs.	For 8x7-ft. Tank 1980 Gals. Weight, Lbs.	For 8x8-ft. Tank 2618 Gals. Weight, Lbs.	For 9x9-ft. Tank 3786 Gals. Weight, Lbs.	For 10x10-ft. Tank 5237 Gals. Weight, Lbs.
20 feet.....	863	1125	1260	1375	1723
25 feet.....	1043	1280	1559	1762	2134
30 feet.....	1277	1617	1797	1991	2532
35 feet.....	1500	1795	2211	2382	2908
40 feet.....	1721	2145	2463	2793	3358
45 feet.....	1959	2354	2831	3291	3756
50 feet.....	2187	2718	3123	3590	4344
Steel Platform Walkway and Railing.....	196	258	482	663	796
Steel Outside Ladder.....	424	469	540	664	706
Wood Inside Ladder.....	36	45	45	49	71
	15	20	20	22	25

PRICES ON APPLICATION.

INSTITUTE OUTFITS

Where a larger quantity of water is required than the capacity of a tank in the Suburban Outfit or where greater elevation than can be obtained in Suburban Outfit is necessary, we can supply an **Institute Outfit** equipped with either Baker or Star Windmill. The tank is erected on a standard substructure and windmill tower is built up from the bottom of the tank. A 15-ft. windmill tower can be erected inside of a 6-ft. diameter tank; a 20-ft. tower inside of a 7- or 8-ft. diameter tank; a 25-ft. tower inside of 9-ft. diameter tank; a 30-ft. tower inside of 10-ft. diameter tank, and 35-ft. tower inside of 12-ft. diameter tank. We would be pleased to submit quotation on these outfits.



Gulf Cypress Tanks With Round Hoops and Draw Lugs

PRICE LIST.

Length of Stave. Feet.	Diameter of Bottom. Feet.	Number of Hoops.	Capacity, Gallons.	Price 1½-in. Cypress.	Price 2-in Cypress.
3	3	3	110	\$12.90	\$15.85
3	4	3	220	18.30	22.80
4	4	4	283	22.80	28.20
2 ½	5	3	283	21.60	27.30
4	5	4	472	31.20	39.30
5	5	5	598	35.40	44.40
4	6	4	693	36.90	46.80
5	6	5	882	44.40	55.80
6	6	5	1002	49.80	63.00
7	7	6	1701	71.40	89.40
6	8	5	2016	78.30	97.80
8	8	7	2646	91.20	111.90
9	9	8	3654	116.70	146.40
8	10	7	4189	119.10	150.30
10	10	9	5292	141.50	179.10

Sizes not listed, quoted on application.

PLAIN OR CONICAL COVERS.

For tank 6 feet in diameter.....	200 pounds.	\$15.85
For tank 8 feet in diameter.....	300 pounds.	23.40
For tank 10 feet in diameter.....	450 pounds.	31.80
For tank 12 feet in diameter.....	775 pounds.	43.50
For tank 14 feet in diameter.....	1050 pounds.	55.20
For tank 16 feet in diameter.....	1150 pounds.	69.00
For tank 18 feet in diameter.....	1500 pounds.	82.80

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

The use of pressure tanks instead of elevated tanks for supplying water under pressure is becoming more and more universal each year. The pressure tank is nothing more than a heavy, carefully made air tight steel tank into which the water is pumped. When the tank is what is commonly called empty, it is really full of air. Into this tank which is full of air water is pumped and as the air cannot escape from the tank, it is gradually compressed until, when the tank is two-thirds full of water, you have a back pressure from the air equal to that you would get from a tank elevated 100 feet. If a high-grade tank like those furnished with our **Invincible Outfits** is used and the connections properly made you will have to pump new air into tank in very small quantities. The only reason for pumping air being to replace that which is absorbed by the water and drawn off. To replace this air, different devices are used. Sometimes simply an air cock in the suction pipe of the pump, or a Hydro-pneumatic Cylinder or a separate air compressor, which devices are listed here. The advantages of a pressure tank system are its absolute reliability, its simplicity and as these tanks are either placed in a cellar or buried in the ground, with the end extending into the cellar, the water is kept at even temperature, being neither very hot in Summer or freezing cold in Winter; this is a big advantage in watering stock. It does away with the necessity of having an elevated tank in house which is undesirable or an elevated tank on tower outside, which is frequently unsightly and very liable to freeze up in cold weather.

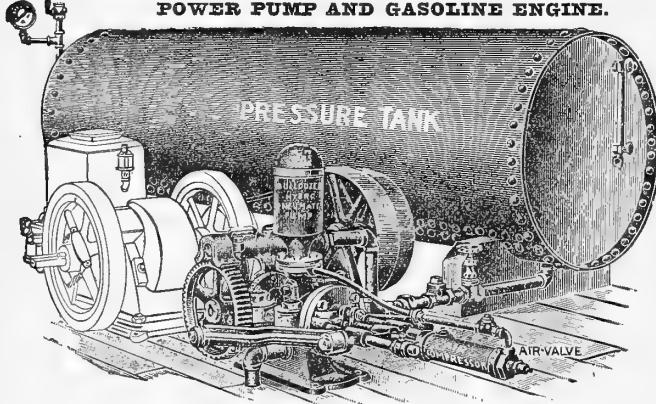
THE PROPER SIZE TANK TO SELECT.

The proper size of tank depends upon the total water consumption and the method of pumping. If the pump is operated by electric motor where reliable current is available, a small tank will give comparatively good service. In a case of this kind, we would suggest a tank with a total capacity of twice the usual daily consumption, although if an automatic switch is used a tank with a total capacity equal to the daily consumption will give good service. Where an engine is used for pumping, we would suggest a tank of a total capacity of not less than twice the number of gallons used daily. In fact, we consider it better to use a little larger tank than this. When you are pumping by hand, we would suggest twice as many gallons capacity as the daily consumption; and, if pumping by windmill, a tank with a total capacity of from four to six times as many gallons as are liable to be used daily.

INFORMATION BLANK.

We would be glad to mail on application to any one interested in the installation of an **Invincible Water Supply Outfit**, one of our special information blanks which will enable you to clearly give the information which will enable us to intelligently recommend suitable equipment.

INVINCIBLE WATER SUPPLY OUTFIT WITH MYERS POWER PUMP AND GASOLINE ENGINE.



The above cut shows a popular outfit where water is to be pumped from shallow well, cistern or spring. Price of this outfit as shown, not including piping, consisting of 36"x10' tank, 1½ H. P. Fuller & Johnson and No. 612 Bulldozer power pump, with air attachment. \$380.00.

Prices on this outfit with larger tanks or on similar outfit with special head for deep-well work quoted on application.

THE KIND OF PUMP TO SELECT AND PROPER POWER TO OPERATE IT.

While we show here two complete outfits which represent installations which are very frequently made, it is impossible to illustrate in the limited space available, combinations which suit the requirements of every one. The depth of well, the amount of water supplied by it, amount of water required per day, the kind of power most convenient to use and many other conditions make it necessary to give individual consideration to each case. In order that we may properly advise our customers as to what they should have, on the following pages will be found fully illustrated and described a line of pumps, pumping windmills, engines and electrically driven pumps which will meet all ordinary requirements.

VERTICAL AND HORIZONTAL TANKS.

Invincible tank 6 feet long and shorter are regularly furnished tapped to set vertical. Longer tanks are regularly tapped horizontal. Any tanks, however, can be furnished with either vertical or horizontal tappings and this makes no difference in price of tanks. Wherever it is practicable to use a horizontal tank we consider it preferable.

LIST OF INVINCIBLE TANKS. (Plain Tanks Without Fittings.)

Diameter in Inches.	Length in Feet.	Weight.	Capacity in Gallons.	List Price.	Our Price.
*24	5	425	120	\$105.00	\$78.75
*24	6	445	145	115.00	86.25
24	8	560	195	140.00	105.00
*24	10	675	245	165.00	123.75
*30	6	560	220	154.00	115.50
*30	8	700	295	189.00	141.75
*30	10	870	365	224.00	168.00
30	12	900	440	262.00	196.50
36	6	750	315	206.00	154.75
36	8	900	420	251.00	188.25
36	10	1050	525	291.00	218.25
36	12	1200	630	331.00	248.25
*36	14	1400	735	376.00	282.00
42	8	1450	575	367.00	275.25
*42	10	1650	720	429.00	321.75
42	12	1900	865	491.00	368.25
42	14	2200	1000	553.00	414.75
42	16	2400	1150	620.00	465.00
48	10	2000	960	504.00	378.00
48	12	2320	1130	574.00	430.50
48	14	2610	1300	648.00	486.00
48	16	2900	1500	722.00	541.50
48	18	3600	1700	795.00	596.25
48	20	3950	1880	873.00	654.75
48	24	4650	2260	1017.00	762.75

The above tanks are all tested to 125 pounds air pressure. The water storage of the tank is about two-thirds of its total capacity.

Manhead in any of the above tanks, \$12.00 extra net.

*Tanks carried in stock.

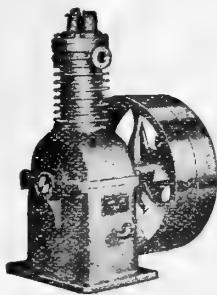
ACCESSORIES FOR INVINCIBLE PNEUMATIC TANK.

Our Price.

Water Gauge	\$3.00
Pressure Gauge	3.00
No. 18 Double-Cylinder Hand Air Pump.....	20.00
Myers Hydro-Pneumatic Cylinder, 3-inch, for use with 2½-inch water cylinder.....	18.00
Myers Fig. 1539 Hydro-Pneumatic Cylinder 3½-inch, for use with 3-inch water cylinder.....	21.00
Power Air Compressors, see Page 193.	

The hand outfit shown here consists of an Invincible Pneumatic Tank with a Myers Double Acting Hydro-pneumatic Pump, which will pump both air and water. This type of pump is suitable for wells not deeper than 25 feet. Price of outfit with a 30"x6' tank which has a total capacity of 220 gallons and an R285A Myers 2½" double acting pump with the necessary valves and gauges. Price complete as described and illustrated with the exception of the piping and pipe fittings, \$138.00.

CURTIS GARAGE AIR COMPRESSORS CURTIS AIR—FREE FROM OIL™



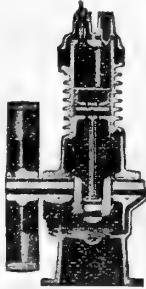
The selection of your Air Compressor has much to do with the success or failure of the service you render your customer.

PURE AIR for your customer means good service, because oil ruins tires, and AIR FREE FROM OIL means fewer blowouts — fewer punctures — greater tire mileage — less repairs; saves them many dollars up-keep every month.

The Curtis controlled-splash system, with the cylinder lubrication of the controlled-splash permanently regulated, insures AIR FREE FROM OIL.

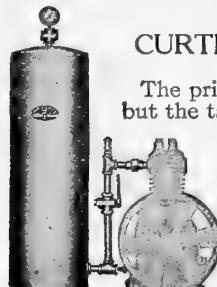
Note these Exclusive Curtis Features

- Controlled-splash, self-oiling system. No excess oil in cylinder, no external leakage nor waste of oil, no oil gets into the tires. Enclosed crankcase keeps out dust.
- Uses about one-tenth of the oil used by any competing machine; saving in oil alone soon pays price of machine.
- High and low level oil-filling gauge, so you can tell at a glance the amount of oil in the crankcase.
- Fan flywheel cools cylinder; increases capacity.
- Inspectable valves; light weight, large area.
- Valves cannot drop into cylinder and wreck machine.
- Hand unloader permits starting compressor against full tank pressure without burning out motor, blowing fuses or burning or jumping of belt.
- Drop forged crankshaft. Adjustable, renewable, non-cutting die cast bearings.
- Head removable without breaking or bending any pipe connection or pipe fittings, only one gasket.



Size	1	2	3	4	5
Bore and Stroke.....	1 1/2 x 2	2 1/2 x 2 1/2	2 1/2 x 3	3 x 3 1/2	4 1/2 x 4 1/2
Minimum Speed.....	500	400	350	300	250
Cu. Ft. Capacity.....	1.2	1.8	2.99	4.32	10.4
H. P. at 100 lbs.....	.24	.36	.60	.87	2.09
H. P. at 200 lbs.....	.31	.47	.78	1.14	2.75
Maximum Speed.....	700	600	550	500	400
Cu. Ft. Capacity.....	1.68	2.70	4.7	7.20	16.5
H. P. at 100 lbs.....	.34	.54	.95	1.45	3.34
Size Pulley.....	9 1/4	11 x 2	12 x 2	14 x 2	22 x 4 1/2
Shipping Weight.....	40	60	100	120	385
With Tight Pulley Only.....	\$34.20	\$37.80	\$47.70	\$50.40	\$108.00
With T. & L. Pulley.....	37.80	41.40	51.30	54.00	126.00
Air Pressure Unloader.....	16.20	16.20	16.20	16.20	19.80

CURTIS STEEL AIR STORAGE TANKS



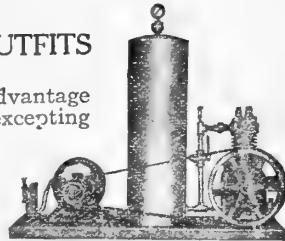
The prices below do not include the compressor, but the tank, pop valve, gauge and drain cock to which the price of the compressor, as above, should be added for complete outfit, as shown in the cut. These tanks are welded tanks, and are suitable for the pressures specified, can be used either vertically or horizontally. These tanks and fittings are commercially air-tight.

Size of Tank	Cap. in Gals.	Usual Size of Com.	Size of Pipe	Tanks without Piping		Extras				
				For 100 lbs.		For 200 lbs.		Piping between Comp. and Tank, Price	For Outlet Cock, Extra Price	
				Working Air Press.	Working Air Press.	Wt	List			
10x30	10.5	1 1/2 x 2	3	35	\$21.60	35	\$23.40	3.60	\$2.70	\$3.60
12x36	17.2	2 1/2 x 2	6	60	23.40	60	27.00	3.60	2.70	3.60
14x48	32.1	2 1/2 x 3	7	77	27.00	140	57.60	5.40	3.15	3.60
16x60	52.5	3 1/2 x 3 1/2	11	117	39.60	240	79.20	5.40	3.15	3.60
20x60	82.5	4 1/2 x 4 1/2	11	176	57.60	340	106.20	7.20	5.40	3.60

STYLE "Z" STATIONARY OUTFITS

FURNISHED BELTED ONLY

This type of outfit has no advantage over the separate mounting, excepting the self-contained feature which allows it to be moved from place to place, as desired, without disturbing any connections whatever.

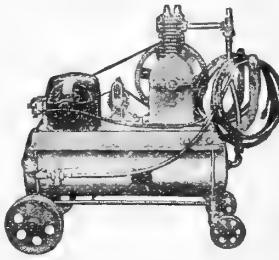


Style Number	Size Com.	Motor, H.P.	Maximum Pressure	Size Tank In.	No Motor, no Starter, no Belt nor MotorPul'y		Complete with Motor		
					D. C.	Wt	D. C.	Wt	
Z-1	1 1/2 x 2	1/2	150	10x30	\$75.60	130	\$142.20	110-220	\$171.00
Z-1a	1 1/2 x 2	1/2	150	12x36	77.40	155	144.00	110-220	172.80
Z-2	2 1/2 x 2	1/2	150	10x30	84.60	160	192.60	210.60	192.60
Z-2a	2 1/2 x 2	1/2	150	12x36	86.40	185	194.40	212.40	194.40
Z-3	2 1/2 x 3	1	150	12x36	95.40	200	212.40	263.20	217.80
Z-3a	2 1/2 x 3	1	150	14x48	99.00	280	216.00	271.80	221.40
Z-4	3 x 3 1/2	1	150	12x36	99.00	225	248.40	279.00	228.60
Z-4a	3 x 3 1/2	1	150	14x48	102.60	305	252.00	282.60	232.20
Z-4b	3 x 3 1/2	1	150	16x60	115.20	485	264.60	295.20	244.80
Z-5	4 1/2 x 4 1/2	3	150	16x60	169.20	645	468.00	507.60	361.80
Z-5a	4 1/2 x 4 1/2	3	150	20x60	187.20	745	486.00	525.60	379.80

STYLE "X" PORTABLE OUTFITS

FURNISHED EITHER BELTED OR GEARED, AT SAME PRICE

Portable outfits, complete with tank, give the advantage of storage in addition to portability, and can be wheeled to otherwise inaccessible places.



Style Number	Size Com.	Motor, H.P.	Maximum Pressure	Size Tank	No Motor, no Starter, no Pinion, nor Belt		Complete with Motor		
					D. C.	Wt	D. C.	Wt	
X-1	1 1/2 x 2	1/2	150	10x30	\$115.20	215	\$187.20	110-220	\$207.00
X-1a	1 1/2 x 2	1/2	150	12x36	118.80	240	190.80	210.60	210.60
X-2	2 1/2 x 2	1/2	150	10x30	127.80	235	228.60	216.60	246.60
X-2a	2 1/2 x 2	1/2	150	12x36	131.40	260	232.20	250.20	235.20
X-3	2 1/2 x 3	1	150	10x30	138.60	245	244.80	300.60	268.20
X-3a	2 1/2 x 3	1	150	12x36	140.40	270	248.40	304.20	271.80
X-4	3 x 3 1/2	1	150	12x36	147.60	250	306.00	336.60	286.20
X-4a	3 x 3 1/2	1	150	14x48	183.60	465	342.00	372.60	322.20
X-5	4 1/2 x 4 1/2	3	150	14x48	264.60	785	513.00	552.60	430.20
X-5a	4 1/2 x 4 1/2	3	150	16x60	273.60	890	541.80	581.40	462.60

The prices named above are all List Prices and are subject to a Discount.

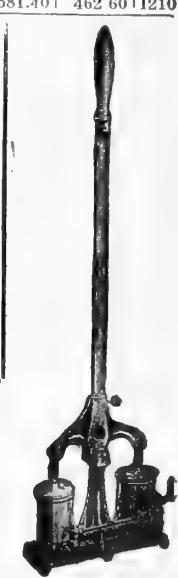
WRITE FOR A SPECIAL PRICE

Curtis Compressors are particularly suitable for PNEUMATIC WATER SYSTEMS

NO. 18 HAND AIR PUMP

No. 18 double-acting lever pump 50 inch high, has 3 1/2 x 5-inch brass cylinders, and is a very strong, easy operating and desirable pump. Will give a good volume of air in very short time with little effort.

Price \$20.00





FIGHT FIRES AT THEIR START

Safeguard Your Property With Pyrene.

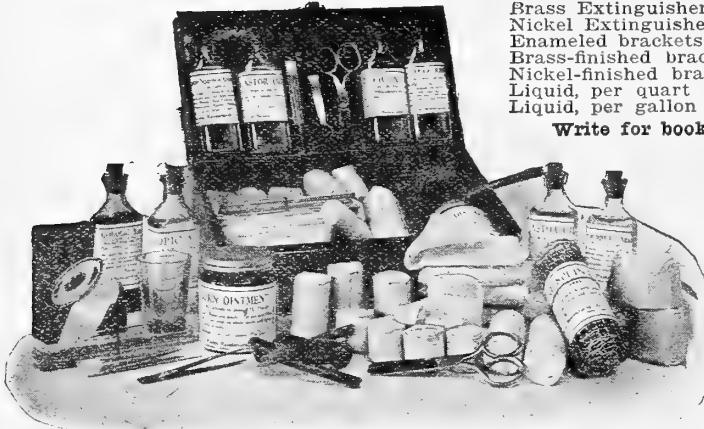
The surest way to avoid serious fires is to have Pyrene on hand when the fire comes. It may save your home, your barn, your stock, your crops, your machinery and your automobile. Pyrene is a great economy even if you never have to use it because of the reduced insurance rates you can obtain if you have it.

All insurance companies in the United States allow 15 per cent. reduction in automobile fire insurance rates if car is equipped with Pyrene Extinguisher.

PRICES:

Brass Extinguishers	\$10.00
Nickel Extinguishers	10.50
Enameled brackets for holding extinguishers	.50
Brass-finished brackets	.75
Nickel-finished brackets	1.00
Liquid, per quart	1.50
Liquid, per gallon	5.00

Write for booklet: "THE VITAL FIVE MINUTES."



PYRENE FIRST AID KIT

REDUCE YOUR COMPENSATION INSURANCE.

The PYRENE FIRST-AID KIT is a metal, dust-proof, sanitary case divided into compartments, each designed to hold a particular article. Being portable, it is not necessary to move the injured person to receive treatment.

Filled with a wonderfully complete assortment of Medicines, Ointments, bandages and other supplies.

PRICE.....\$4.00 *



WHEREVER YOUR FIRE STARTS BE READY TO STOP IT—

PRONTO

STOPS FIRE QUICK

Your protection against fire is your preparedness to stop it the instant it starts. The first 60 seconds are VITAL.

Protection means having sure-acting extinguishers handy wherever your fire might break out.

PRONTO gives you this kind of protection—and at a price you can afford.

PRONTO means quick action and the PRONTO EXTINGUISHER is the quickest, surest-acting, most inexpensive, practical extinguisher in existence. So simple any child can use it—nothing mechanical to operate—nothing to go wrong.

Just pull from bracket and dash contents into base of fire—IT CANNOT BE TAKEN FROM BRACKET WITHOUT OPENING THE SEALER CAP.

PRONTO LIQUID is the most efficient fire extinguishing agent known to science. It is twice as heavy as water and can be thrown twenty or thirty feet with great accuracy. When it contacts with fire it instantly spreads a heavy gas blanket under which no fire can live. It stops electrical, oil, gasoline, varnish and other hazardous fires. PRONTO will not injure the most delicate colors or fabrics—it leaves no stains, not even a wet spot.

Put PRONTO in every room—doubly protect the danger spots—the kitchen, the open fire, the cellar, the garage and don't forget the Automobile.

One PRONTO will stop any fire at the start. Six cost less than one ordinary extinguisher and are always ready in six different places.

\$2.00 EACH

INSTANT FIRE PROTECTION EVERYWHERE AT A PRICE YOU CAN AFFORD
PUT PRONTO IN EVERY ROOM

Fire gives no warning. It comes when you least expect it—and usually where you have no protection.

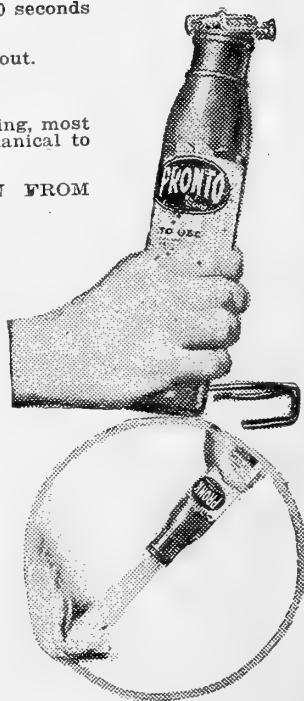
An expensive extinguisher hanging in the kitchen is too late for the fire that starts in a distant room. PRONTO is so inexpensive you can afford one in every room—handy—ready to stop fire QUICK!

INSTALL PRONTO IN THE AUTOMOBILE

Every day along any highway, you see the charred remains of an automobile.

Gasoline fires must be stopped instantly. PRONTO stops them before they have a chance to grow.

Install a PRONTO within the driver's reach; one handy to the rear seat and keep one in the tool box for extra emergency.





STARTING TYPE

THE GUARANTEED COLUMBIA STORAGE BATTERY

The "GUARANTEED" COLUMBIA STORAGE BATTERY is the product of the National Carbon Co., Inc., the manufacturers of the universally known and used COLUMBIA DRY BATTERY. Years of experience in building batteries of all descriptions stand behind every Columbia, backed up by many real improvements in design and construction which produces a battery qualified to give an unusually powerful and unequalled service.

The Columbia "GUARANTEE" is the result of this experience as expressed in the design and construction—brought to the highest state of perfection by many years of extensive research work. It is the only "Guarantee" which is based on an actual electrical output for a definite length of time.

The Columbia "Guarantee" is not a promise of an adjustment or a compromise (usually in favor of the adjuster), it is a "Guarantee" which is not IN FAVOR OF ANYONE—it is an actual definite "straight" Guarantee covering the life and performance (service) of every Columbia Battery.

THE COLUMBIA GUARANTEE.

Every COLUMBIA Starting and Lighting battery (except the SE type) is guaranteed for one year, to be capable at any time during the guarantee period, of developing at least 80% of its original rated Ampere hour capacity.

It is furthermore guaranteed when shipped from factory or an Official COLUMBIA Service Station: To contain the full number of plates specified in the type number. To contain the full published positive plate volume and area. To contain plates of the full dimensions and thickness specified. To be free from inherent defects in workmanship and material.

The Company WILL MAKE GOOD this guarantee by replacement with another battery in first-class operating condition, should any battery of the types mentioned be returned to the factory or an Official COLUMBIA Service Station, that has failed to fulfill the terms of the guarantee. (The SE type battery is similarly guaranteed for six months.)

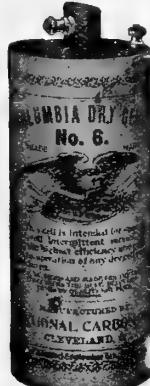
A GUARANTEE WITHOUT PAYMENT BY THE PURCHASER FOR FULFILLMENT OF THE GUARANTEE.

When ordering, specify type of Battery, using list, and whenever possible give compartment space available, dimensions and data from name plate of old battery to be replaced.

Car Year	Model	Type Battery	List Price	Car Year	Model	Type Battery	List Price
Buick	D-44, 45, 46, 47...	R 311 AZ....	\$44.65	Hupmobile	{ N, NL, NQ, NR, NU, Ser. N-1, 2, 3, 4...}	R 313 AZ....	\$50.95
1916.....	D-54, D-55.....	R 313 AZ....	50.95		1918.....	R (All)....	44.65
1917-18.....	All.....	R 311 AE....	44.65				
1919.....	IE-45.....	R 313 AW....	50.95				
Cadillac	1914-15-16... 14, 51, 53	C 313 DE....	\$64.60	Maxwell	1915-16-17... 25.....	D 67 MA3....	\$59.35
1917.....	55.....	C 313 DE....	64.60		1918-19.....	D 67 KSA3C	59.35
1918-19.....	57.....	C 313 DE....	64.60	Oakland	1916..... 32.....	R 311 AX....	\$44.65
			1916..... 33.....		R 311 AZ....	44.65	
Chevrolet Motor Co.	Baby Grand.....	D 313 AZ....	\$47.25		1916-17..... 50.....	R 313 AZ....	30.95
1917.....	490.....	R 311 AO....	44.65		1917..... 32.....	R 311 AE....	44.65
1918.....	F/A.....	R 313 AW....	50.95		1918-19..... 34-34-B	R 311 AO....	44.65
1919.....	490.....	R 311 AO....	50.95	Overland (See Willys-Knight)	1915..... 80, 81, 82.....	D 313 DO....	\$47.25
1919.....	490.....	R 311 AZ....	50.95		1916..... 75.....	R 311 AO....	44.65
			1916..... { 85, 85-6, 86, 83 83-B, 83-B.O.E		D 313 DO....	47.25	
Dodge Bros.	1916-17-18-19 All.....	R 67 KSV....	\$63.00		1917..... { 85-4, 85-6, 86-B, 88-6 90-T, 90-R,	D 313 DO....	47.25
					1917..... { 90-CC and De- livery.....	R 311 AO....	44.65
					1918..... { 90, 85, 85-B-4, 90-B-T	R 311 AO....	44.65
				Packard	1914-15-16... { 238, 338, 448, 548, 125, 135...	D 319 X....	\$64.60
					1918-19..... 3-25, 3-35.....	D 319 X....	64.60
Ford	Starting and Lighting System			Studebaker	1916..... ED, SF, 7.....	R 313 AZ....	\$50.95
					1916-17..... ED, SF, 7. Ser. 17.	R 313 AZ....	50.95
					1918-19..... EH, SH, EG.....	R 313 AW....	50.95
ABOVE PRICES SUBJECT TO 20% DISCOUNT RETAIL.							

COLUMBIA DRY CELL BATTERIES

These batteries have been the standard for quality for many years. Wherever dry batteries are used the COLUMBIA is known to give better service than any other make, regularly furnished in round cartons, as illustrated, but can be furnished in square cartons if desired. Where spring connections are preferred they can be furnished at the same price as the screw connections.



No. 6. COLUMBIA IGNITOR.

Is the highest-grade battery on the market. It is unexcelled for any service. It is particularly satisfactory for ignition, or where the current drain is high.

Price, 40 cents each.

No. 6. COLUMBIA.

A high-grade battery for every sort of service. It stands up well under heavy drains, and is particularly useful for intermittent service, or service where the current drain is not high.

Price, 40 cents each.



COLUMBIA HOT SHOT BATTERY

COLUMBIA HOT SHOT BATTERY is a unit battery in an attractive red, moisture proof cover. Soldered copper strips connect the individually tested cells, which are entirely surrounded by a water-proof insulating compound. It is only necessary to connect two wires to the binding posts. The battery is then ready to operate. Hot Shot is particularly useful for ignition where the variety of sizes makes it adaptable for motors of all sorts—stationary, vehicle or motor-boat. It is very satisfactory for carriage lighting outfits.

Most popular sizes—

- No. 1462—30 amperes, 6 volts..... \$2.05
- No. 1562—30 amperes, 7½ volts..... 2.55
- No. 1662—30 amperes, 9 volts..... 3.10

Other sizes quoted on application.

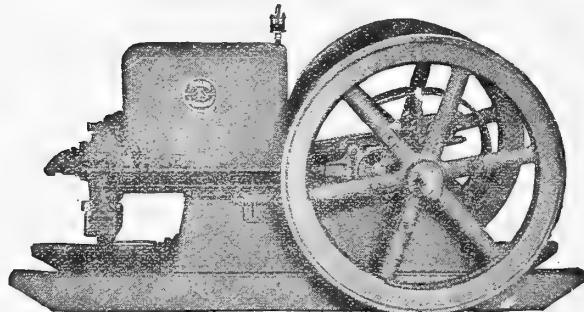


FULLER & JOHNSON ENGINES

KEROSENE ENGINES

FULLER & JOHNSON

MODEL "K"—THROTTLING GOVERNOR.



3-5-7-9 and 12 HORSE POWER.

Well adapted for electric lighting plants, for use on the farm, or in shops, elevators, mills, creameries, etc., or on concrete mixers, balers, etc. Has new and improved throttling governor; extra heavy fly wheels which further insure constant, steady power, so essential for operating the electric dynamos, cream separators, etc.

The engines are beautifully painted and striped in gold, and are mounted on substantial hardwood skids. They may easily be skidded from place to place, or installed as stationary engines. If it is desired to mount the engine on a hay baler, well drill, concrete mixer, or other machine, simply remove the skids as the engine is self-contained—that is, the engine is hopper cooled with no pipes or screens, and the fuel tank is mounted in the full base and connected to the mixer above the base line.

Will run on kerosene, benzine, naptha, distillate, motor spirits or gasoline.

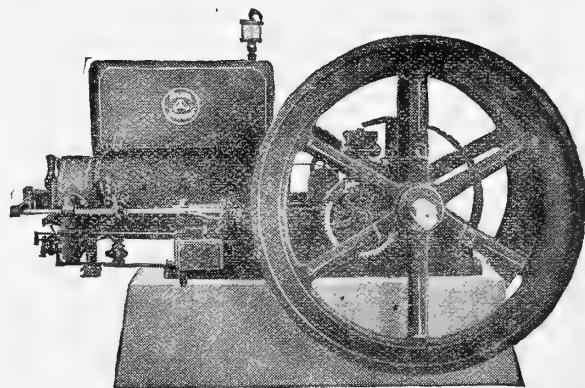
Furnished with a heavy galvanized fuel tank; a machine turned plain pulley, which fits on either side of the engine; a good muffler; a sight feed lubricator; large grease cups for the bearings; a full set of dry batteries, and a water-proof spark coil, all wired up and neatly packed in a good battery box, nicely painted; all necessary wrenches; oil can; priming cup; starting crank (except on 12 H. P.); and a complete book of instructions.

H. P.	R. P. M. Speed	Standard Pulley Inches	Diameter Fly-wheel Inches	Capacity Fuel Gallons	Floor Space Inches	Approx. Ship. Wgt. Lbs.	Price (Battery Ignition) Each.
3	475	8x4	22	2 3/4	35x43	575	\$155.25
	450	12x6	26	5 1/2	40x52	825	224.25
7	400	16x8	32	7	44x63	1200	332.20
9	385	18x8	36	10	48x66	1700	465.75
12	325	18x8	42	14	46x80	2350	672.75

KEROSENE ENGINES

FULLER & JOHNSON

MODEL "K"—THROTTLING GOVERNOR.



15-20 and 25 HORSE POWER.

These larger sizes embody the very latest developments in Throttling Governor Kerosene Engines. They run very smoothly and quietly and at a uniform, steady speed, with a big surplus of power. They operate perfectly on kerosene. Especially suited for installation in creameries, feed mills, grain elevators, electric light plants, etc.

They are regularly equipped with fuel pump so that the large fuel tank may be placed outside the building.

Each engine is furnished with plain pulley; exhaust pot (or muffler when ordered); starting battery; coil, switch; built in, low tension magneto; water gauge; wrenches; cylinder oiler; grease cups; priming cup; supply of cylinder oil and cup grease; oil can; 53 gallon outside connected tank with sufficient pipe to connect tank 30 feet from engine.

Pulleys other than those specified below can be furnished, charge being made according to the size of the pulley.

H. P.	R. P. M.	Standard Pulley	Diameter Fly-wheel Inches	Floor Space	Approx. Ship. Wgt. Lbs.	Price Each F. O. B. Factory
15	300	20 x 12	48 "	55 x 84	3400	\$850.00
20	280	20 x 12	52 "	60 x 96	4400	1,040.00
25	260	20 x 12	52 "	60 x 96	5000	1,200.00

FRICITION CLUTCH PULLEYS

Size	1 1/2 and 3 H. P. *	Size	5 and 7 H. P. *	Size	9 H. P. to 25 H. P.
5 x 4	\$16.10	12 x 6	\$25.30	16 x 8	\$42.55
6 x 4	17.85	14 x 6	27.60	18 x 8	45.50
7 x 4	19.55	16 x 6	29.90	20 x 8	48.30
8 x 4	21.30	18 x 6	32.20	22 x 8	51.20
10 x 4	23.00	20 x 6	34.50	24 x 8	54.05
				26 x 8	57.00
				28 x 8	59.80
				30 x 8	62.70
				32 x 8	65.55
				34 x 8	67.50
				36 x 8	71.30

Prices to be added to price of engines.
*Shaft type Friction Clutch Pulley.

MAGNETOS

Any size Models "K" or "N" Kerosene or Gasoline Engines can be equipped with built-in, gear-driven magneto as shown.

Prices to be added to price of engine equipped with battery ignition. (Magneto furnished with 15-20 and 25 H. P. sizes.)

LOW TENSION, GEARED MAGNETO

WHEN SHIPPED ON ENGINE

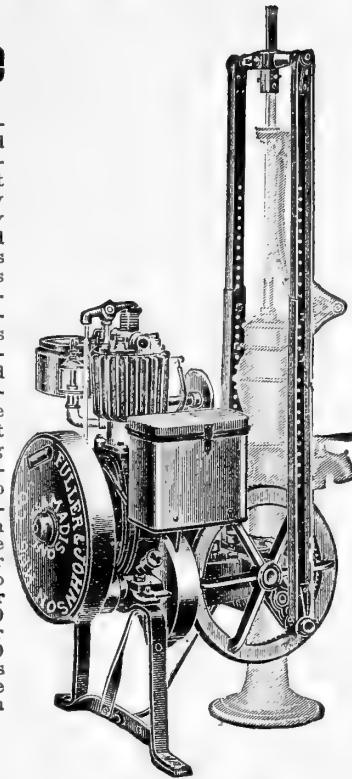
1 1/2 H. P. no batteries.....	\$11.50
3-5 H. P. no batteries.....	15.00
7 H. P. no batteries.....	16.10
9-12 H. P. with starting batteries.....	25.30

FULLER & JOHNSON ENGINES

Farm Pump Engine

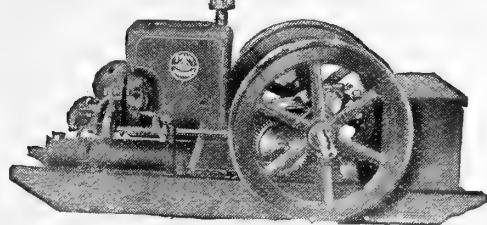
Thousands of these outfits are in daily service and giving satisfaction. The illustration shows the outfit as it comes complete ready to attach to almost any make of windmill head pump. In designing this outfit, the manufacturers had in mind a pumping engine simple, convenient and reliable and as near trouble proof as possible. Being an air-cooled engine there is no likelihood of it freezing and the way it is constructed it cools properly while doing its work. It comes complete as illustrated (pump stand not included). Engine will pump water from an ordinary well at a rate of 35 five-inch strokes per minute and has power to lift 550 gallons of water against a total lift of 100 feet or 240 gallons of water against a total lift of 200 feet. If longer stroke is desired the engine can be adjusted to 7½ or 10-inch stroke.

PRICE \$109.25



1½ H. P.

MODEL "N" ENGINE



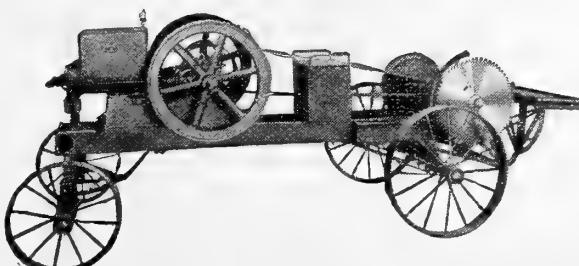
STATIONARY.

The 1½ H. P. Model "N" Engine, although similar in appearance to the larger Model "N" Engines, is slightly different in minor details. The Stationary Engine as shown, is mounted on skids with provision made for the battery box. Gasoline tank is supported between the skids. The pulley fits on either side of the engine.

Regular equipment with engine consists of gasoline tank in the base, plain pulley, muffler, cylinder oiler, grease cups, battery box, dry batteries, spark coil, switch, and accessories. All packed in one crate.

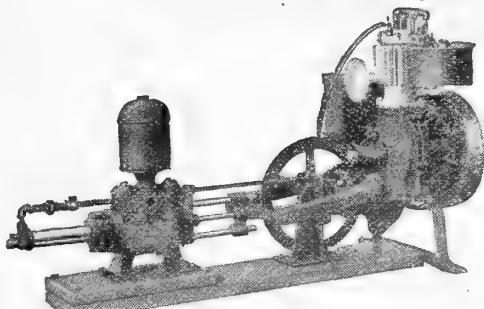
PRICE \$86.25

Magneto is extra, see page 196.



Model "K" Kerosene Portable Saw Rigs

PRESSURE PUMP OUTFITS



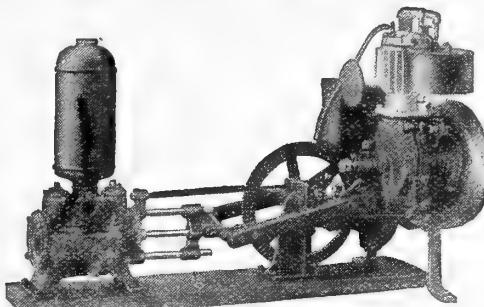
Cutout No. 320 as shown consists of the Farm Pump Engine direct connected to a special 3"x5" double acting, brass fitted, water and air pump. This outfit is especially adapted for pumping water and air into a pneumatic tank, where the source of

water supply is within the suction limit (20-22 ft. sea level). Suction and discharge are tapped for 1¼-inch pipe and can be taken from either side of the pump.

Approximate shipping weight, 450 lbs.

PRICE, each \$172.50

FORCE PUMP OUTFITS



The force pump outfit as shown consists of the Farm Pump Engine direct connected to a brass fitted, double acting pump of improved design. These outfits are especially suited for pumping water to a higher elevation, such as elevated tanks, or reser-

voirs, or against pressure for watering lawns, washing vehicles or for fire protection. To be used where water supply is within suction limit (20-22 ft. sea level).

Made in capacities as listed below.

Outfit No.	Bore and Stroke Pump	Capacity Gallons Per Hour	Total Head Feet	Suction Discharge Pipe Inches	Shipping Weight Lbs.	Price Each
633	3 x 5	600 gal.	125 ft.	1¼ inch	435	\$166.75
644	4 x 5	1100 gal.	70 ft.	1½ inch	475	169.75
655	5 x 5	1700 gal.	40 ft.	2 inch	500	172.50

MODEL "K" KEROSENE PORTABLE SAW RIGS

This outfit is especially suited for sawing pole or cord wood into stove wood. The truck is very rigid and especially built to stand rough and long hauls.

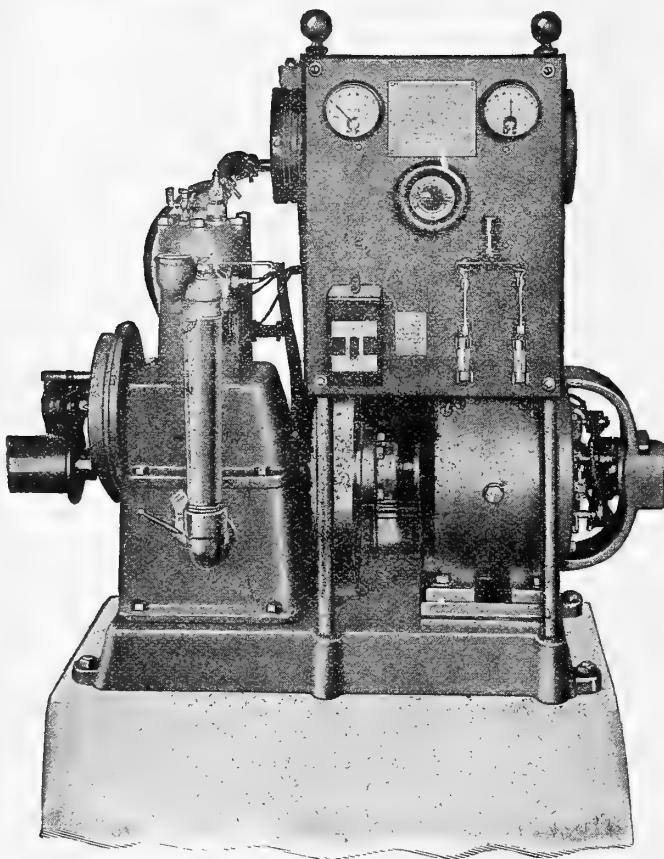
Regular equipment furnished consists of Model "K" Throttling Governor Kerosene Engine with plain pulley and other accessories furnished with Stationary Engine, mounted on special long truck with seat and tool box, tongue and with tilting saw table, belt, belt tightener and saw. Shipped complete as shown above.

H. P.	R. P. M. Speed	Engine Pulley, Inches	Diameter Saw, Inches	Approx. Shipping Weight Lbs.	Code Word	Price (Battery Ignition) Each
5	450	20 x 8	24	2050	Song	\$419.75
7	400	20 x 8	26	2400	Sort	517.50
9	385	20 x 8	28	2900	Sour	677.00

Magneto is extra, see page 196.

Friction Clutch Pulley is extra, see page 196.

"GLOBE LIGHT" ELECTRIC PLANT



The engine is connected to the generator by a flexible connection, insuring a smooth easy start, and preventing strain on either engine or generator. The engine is started automatically by power furnished by the battery, operating the generator as a motor. Closing the starting switch starts the engine, no hand cranking necessary.

Engine, Generator and Switchboard are all mounted on the same cast-iron base. Batteries are mounted separately, usually on a battery rack, not a part of the regular equipment.

EASY TO INSTALL

The "GLOBE LIGHT" is as easy to install as it is to operate, being all mounted on one base, just set the outfit on concrete foundation located where you want it, bolt it down and connect the four wires, two to the batteries and two to the house lighting service wires, and you can have light and power at once. If your house is wired the service of an electrician is not needed to install a "GLOBE LIGHT." Any man that can run an automobile or a gasoline engine can handle a "GLOBE LIGHT" right from the start by following the simple but complete directions, which are sent with every plant.

STORAGE BATTERIES

The batteries furnished with the "GLOBE LIGHT" are of the Faure type, in sealed glass jars.

There is no particular secret about the manufacture of lead battery plates, but it has always been difficult to make an element that would stand up under electro chemical changes and furnish reliable service. "GLOBE LIGHT" batteries are of pasted type. This type of battery plate has proven most satisfactory for house lighting as the plates do not lose capacity under slow discharge rates of light working conditions.

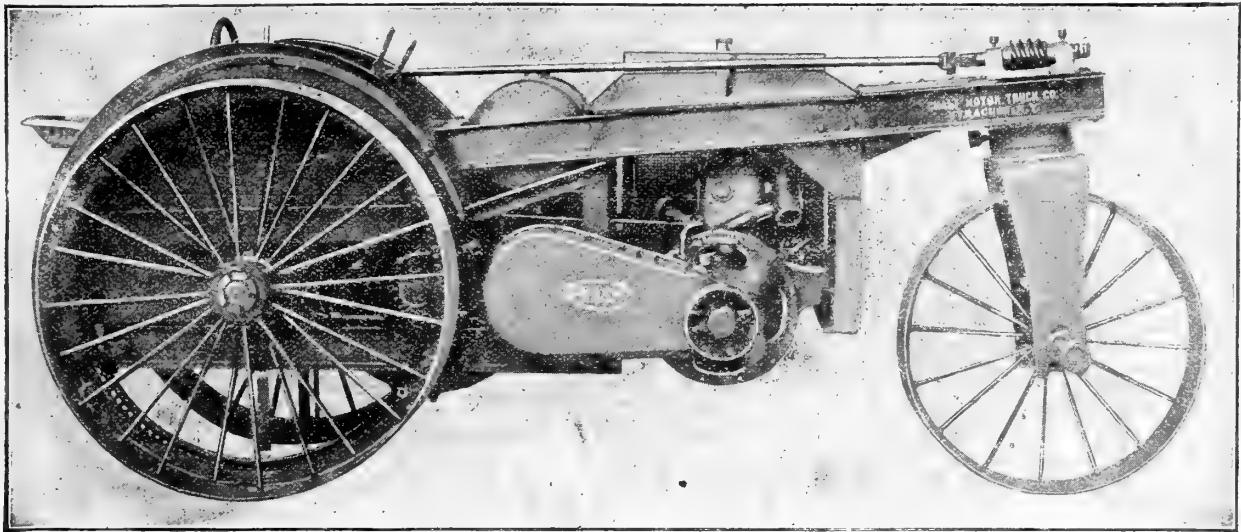
PRICES

D. C. 200-Engine Set, with 16 Cell 90 A. H. Battery.....	\$535.00
D. C. 201-Engine Set, with 16 Cell 120 A. H. Battery.....	560.00
D. C. 203-Engine Set, with 16 Cell 160 A. H. Battery.....	585.00

THE CHASE 9-18 TRACTOR

STURDY, LOW CONSTRUCTION, PERFECT BALANCE, EASE OF CONTROL, WIDE RANGE OF HITCH, PERMIT THE USE OF ANY STANDARD MAKE OF TILLAGE IMPLEMENTS. DOES YOUR FARM HAULING AND FURNISHES POWER FOR BELT WORK.

Can be furnished with single front wheel as illustrated or with double front truck if preferred or can furnish you a combination front consisting of center wheel as illustrated with two six-inch face wheels on outside of castor fork.



ONLY TRACTOR THAT TURNS IN A RADIUS OF ITS OWN WIDTH

WHY THE CHASE 9-18 FARM TRACTOR SUCCEEDS

It meets the growing demand for a medium-sized tractor especially suited for the small or medium-sized farm.

It is the product of ten years careful engineering experience coupled with an intimate knowledge of what the progressive farmer expects in a tractor.

It is made by a company known the world over as pioneer builders of motor trucks.

The Chase Farm Tractor is ideally suited for eastern farming conditions. For hill and valley work and rough land it has no equal, while its simplicity of construction and ease of control renders it especially suitable for orchard work and other difficult plowing problems.

It will handle a two gang, 14-inch, or three 12-inch plows under any reasonable conditions, operating anywhere a vehicle corn binder can be successfully used. It will pull an 8½-foot double acting Disc Harrow, a three-section Spring Tooth Harrow, or a four-section Smoothing Harrow. Or it will

handle equally well a 6-foot double acting Disc Harrow and a two-section Smoothing Harrow in combination.

The rear wheels being driven by individual clutches, the Chase will work successfully under conditions where a tractor operated by ordinary differential would stall or mine. For the same reason on slippery ground where one wheel, only, can get a grip, which would be sufficient to stop a machine operated by differential, the Chase will pull out and perform its full duty without delay or hindrance.

The driving wheels being outside the frame, it is possible to use extension rims on the rear wheels, increasing their normal width from 12 inches to 22 inches each. The front wheel is so arranged that the axle extends beyond the yoke. Two additional wheels placed on this extension axle, convert the front wheel into a Roller, thereby permitting the tractor to operate on plowed ground with perfect ease, acting as a roller and clod crusher while harrowing or seeding, with no danger whatever of packing the soil.

SPECIFICATIONS

Wheels.—Front wheel or steering wheel spring mounted, 36 inches in diameter, 8-inch face. Equipped with front extension wheels, 34 inches in width. Rear driving wheels 48 inches in diameter, 12-inch face. Equipped with rear extension rims, 22-inch face each.

Kind of Fuel.—Gasoline, distillate and kerosene.

Cooling System.—Enclosed radiator equipped with fan shroud and powerful cooling fan. Water circulated by centrifugal water pump, having large shaft and bearings.

Number of Wheels.—Two driving in rear, one steering in front; with extensions applied to both front and rear wheels tractor becomes a roller covering the entire ground. 84 inches in width.

Control.—Motor, friction clutch, gear shift and brake operated by convenient hand levers. Friction clutches operating driving wheels controlled by convenient foot pedals.

Bull Pinion Gears.—High carbon steel heat treated so tough they can't be machined—so hard they can't be drilled.

Plowing Capacity.—Two 14-inch plows of any standard make, under all conditions, and three 12-inch plows in stubble or favorable soil conditions.

Harrowing Capacity.—One 8½-foot double action disc harrow. Three section spring tooth harrow, or the above equivalent in other tillage implements.

Belt Power.—All forms of farm belt work requiring up to and including 18 horsepower.

Motor.—Chase Buda long stroke, heavy duty type, 4 cylinder, 4 cycle, water-cooled.

Ignition.—High tension magneto, having set spark equipped with impulse coupling for starting. No batteries.

Carburetor.—Automatic float feed. All air going to the carburetor is cleaned and thoroughly heated by a special cleaning and heating device.

Air Cleaner.—Centrifugal visible type. Very simple and efficient.

Lubrication.—Automatic splash system and force feed pump, giving positive lubrication for motor.

Transmission.—Chase, two speeds forward, one reverse; sliding gear, in oil-tight dust-proof case. Gears operate in oil. Hyatt bearings throughout.

Speed, Miles Per Hour.—High, 2½; low, 1½; reverse, 1. Speed may be changed by a simple governor adjustment.

Motor Clutch.—Internal expanding shoe located in engine fly wheel. Bierman type.

Brake.—Powerful contracting band applied to bull pinion shaft.

Foot Clutches for Driving Wheels.—External contracting band clutches operated by convenient foot pedals, giving individual control of each driving wheel.

Dimensions.—Length, 11½ feet; width, 68 inches; height, 57 inches.

Weight.—4,700 pounds.

Frame.—Angle and channel steel. Joints hot riveted.

Tank Capacity.—Fuel tank, 11 gallons kerosene, 2 gallons gasoline.

Belt Pulley.—8 inches in diameter, 6-inch face; normal speed, 900 revolutions per minute. Adjustable.

Draw Bar.—Adjustable.

PRICE, STANDARD EQUIPMENT, \$1,252.00, PLUS FREIGHT FROM SYRACUSE.

ELECTRIC PUMPS FOR PNEUMATIC PRESSURE WATER SYSTEMS AND FOR ELEVATED TANKS

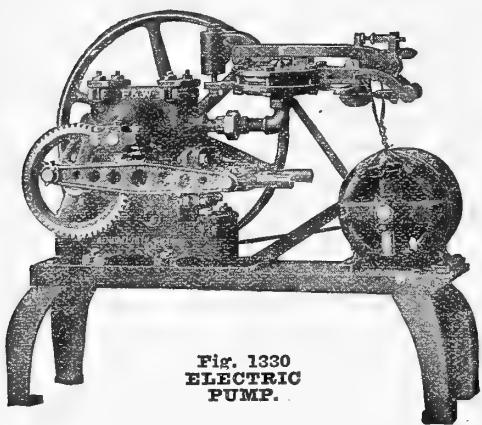
Fig. 1330
ELECTRIC
PUMP.

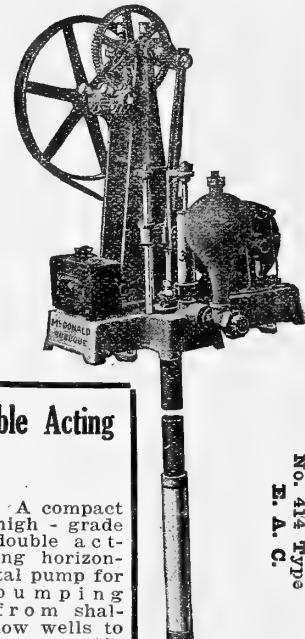
Fig. 1330 illustrates a popular type of electric pump complete with motor and automatic switch for pneumatic tank work. This is a shallow well pump limited to a 25-foot suction lift, has a capacity of 250 gallons per hour and will operate against 50 pounds discharge pressure. Pump is equipped with air valve for supplying air to the tank. The switch used is the Fig. 1350 Hoosier Automatic Pressure Regulator, described below price with 60 cycle single phase 110 volt alternating current motor.

OUR SPECIAL PRICE \$110.00

Fig. 1331—This pump is identical with Fig. 1330, except that it is for open tank systems and has no pressure regulator or air valve. Price with motor as described above. **OUR SPECIAL PRICE** \$100.00

414 Type E. A. C. ELECTRIC PUMP

A compact and convenient pump for wells of moderate depth for use in connection with Pneumatic Water Systems. Mounted on iron base, with one-third horse power motor and automatic switch and with air attachment makes a very complete and convenient pumping outfit for ordinary household requirements. Has 2x10-in. brass cylinder, which operates on five-inch stroke. **Price, \$160.00.** Fresh-Water Attachment, \$8.50.



Hoosier Automatic Pressure Regulator

Fig. 1350—Automatic Pressure Regulator is used for automatically controlling electric driven power pumps. It can be adjusted for any pressure up to 75 pounds and for a variation of 20 pounds. For domestic purposes, it is best to have it cut in and out at 30 to 50 pounds, respectively.

OUR PRICE \$16.50

GOULD'S PYRAMID POWER PUMP

A pump of high efficiency for use where water is not more than 22 feet below pump. The gearing is machine cut of hard cast iron; the crankshaft is of high carbon open-hearth steel; the bearings are lined with best-grade babbitt metal; cylinder is best quality hydraulic iron fitted with brass lining; the valves are rubber-disk type on bronze seats, convenient to get to.

Size 2½x4, suction and discharge 1¼", capacity 408 gal. per hour.

Price, \$66.00

Size 3x5, suction and discharge 1½ inch, 280 lbs., 720 gal. per hour.

Price, \$90.00

Size 4x5, suction and discharge 2 in., 325 lbs., 1260 gal. per hour.

Price, \$107.25

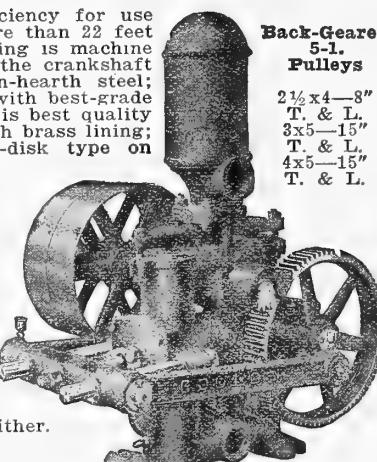
Air Attachment for either.

Price, \$16.50

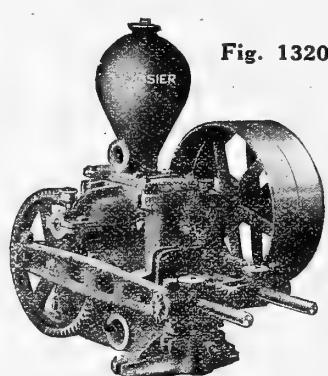
Special circular and prices on larger sizes on application.

Back-Geared
5-1.
Pulleys

2½x4—8"
T. & L.
3x5—15"
T. & L.
4x5—15"
T. & L.



The Hoosier Horizontal Double Acting Power Plant



A compact high-grade double acting horizontal pump for pumping from shallow wells to pneumatic water supply systems. The whole design of this pump is with a view to compactness, strength and accurate operation. The load is well equalized, has 2½x4 brass-lined cylinder, superior type of stuffing box, back geared four to one; has 10x2½ pulleys, capacity at 50 R. P. M. 510 gallons per hour; 1¼ in. suction and discharge; with machine cut gears.

OUR SPECIAL PRICE \$45.00

BRASS VALVES.

	1/4 in.	1/2 in.	3/4 in.	1 in.	1 1/4 in.	1 1/2 in.	2 in.	
Jenkins J. D. Globe and Angle Valves.	\$1.30	\$1.80	\$2.28	\$3.35	\$4.55	\$6.35	\$9.60	
Gate Valves	2.04	2.35	2.88	2.95	5.20	7.05	10.25	
Heavy Swing Check Valves		2.68	3.00	3.75	4.85	6.30	10.00	
Lever Handle Stop		1.40	2.50	3.70	6.55	10.00	17.00	
Stop and Waste		1.60	2.55	3.75	6.70	11.00	18.40	
Compression Bibbs, plain.	1.85	3.00	4.40					
Compression Hose Bibbs		2.00	3.25	5.00				
Galvanized Foot Valves					1.25	1.75	2.00	
Iron Body Foot Valves					1.60	2.25	2.50	



GALVANIZED PIPE FITTINGS.

	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Elbows	.09	.11	.17	.17	.30	.46	.66	1.02
Tees	.10	.13	.20	.21	.32	.56	.84	1.26
Street Elbows	.07	.12	.16	.24	.32	.48	.66	1.02
45-Degree Elbows	.06	.09	.11	.18	.32	.50	.64	1.22
Cross	.14	.26	.34	.60	.68	.88	1.30	
Bushings	.12	.12	.12	.14	.18	.20	.26	.40
Lock Nuts	.03	.04	.05	.07	.11	.14	.18	.22
Caps	.04	.05	.09	.14	.20	.26	.34	.54
Reducers	.08	.10	.11	.16	.22	.30	.40	.64
Couplings	.06	.08	.10	.18	.22	.36	.40	.52
Galv. Malleable Unions	.34	.46	.60	.70	.92	1.40	1.84	2.28

GALVANIZED
NIPPLES.

1/2x1 1/8 or 1 1/2	\$0.08
1/2x2, 2 1/2, 3, 3 1/2	.13
3/4x1 1/8 or 2	.10
3/4x2 1/2, 3, 3 1/2, 4	.16
1x1 1/2 or 2	.13
1x2 1/2, 3, 3 1/2, 4	.20
1 1/4x1 1/4 or 2 1/2	.18
1 1/4x3, 3 1/2, 4, 4 1/2	.30
1 1/2x1 3/4 or 2 1/2	.22
1 1/2x3, 3 1/2, 4, 4 1/2	.35

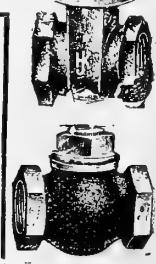


Fig. 103.



MYERS PUMPS

Fig 398—Heavy Submerged Cylinder Deep Well Double-Acting Windmill Head Three-Way Force Pump.

An unusually heavy strong pump for deep wells. We recommend it as the best of the Myers Line of Windmill Head Pumps. Can be adjusted to 6, 8 or 10-inch stroke.

Prices of Fig. 398 Pumps.

No. 22 with 3-inch brass-lined lower cylinder.

Our Price.....\$30.75

No. 23 with 3-inch brass lower cylinder.

Our Price.....\$32.50

No. 24 with 3½-inch brass-lined lower cylinder.

Our Price.....\$32.50

No. 26 with 4-inch brass-lined lower cylinder.

Our Price.....\$35.50

R-1072 MYERS HAND PUMP.

A very popular cog gear lift and force pump with 3-inch brass-lined cylinder.

Our Price, \$15.35

R-1052.—A lift pump of the same style as the R-172 Lift and Force Pump.

Our Price, \$12.50

The Myers Imperial Working Head

Fig. 1584.

This head is a splendid combined outfit for hand or belt power. It can also be used by windmill. It is made with machine cut gears, back geared 6 to 1 and has 6 and 9-inch strokes. Can be furnished for either 2½, 3 or 3½-inch suction pipe. In ordering state which is wanted.

Fig. 1584—No. 389
Myers Imperial Working Head.

Our Price, \$47.00

The Myers Defiance Working Head

Fig. 1566.

This well-known

type still retains its original popularity. Has machine cut gears and cock spout, back geared 6 to 1—has 6 and 9-inch strokes and back outlet is tapped for 1½-inch pipe. This can be plugged and underground Tee discharge used.

Fig. 1566—No. 388—Defiance Working Head. Our Price, \$38.40.



Fig. 398

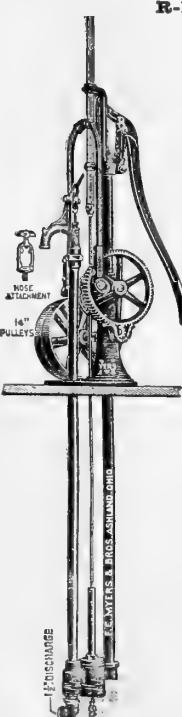


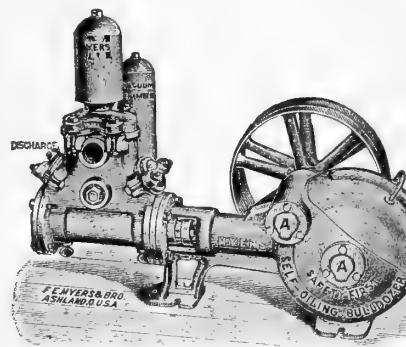
Fig. 1584.



Fig. 1566.

This well-known type still retains its original popularity. Has machine cut gears and cock spout, back geared 6 to 1—has 6 and 9-inch strokes and back outlet is tapped for 1½-inch pipe. This can be plugged and underground Tee discharge used.

Fig. 1566—No. 388—Defiance Working Head. Our Price, \$38.40.



Capacity 500 Gals. at 70 RPM.

No. 612—Myers Self-Oiling Bulldozer Power Pump with Vacuum Chamber, 2½x3 in. Brass Lined Cylinder, 12x2 in. Tight and Loose Pulleys, 1½ in. Brass Piston Rod, Suction and Discharge 1½ inch. **Our Price, \$65.25.**

Capacity 1000 Gals. Per Hour at 70 RPM.

No. 613—Myers Self-Oiling Bulldozer Power Pump with Vacuum Chamber, 3x4 in. Brass Lined Cylinder, 14x2½ in. Tight and Loose Pulleys, ¾ in. Brass Piston Rod, Suction and Discharge 1½ inch. **Our Price, \$99.00.**

Capacity 2000 Gals. Per Hour at 65 RPM.

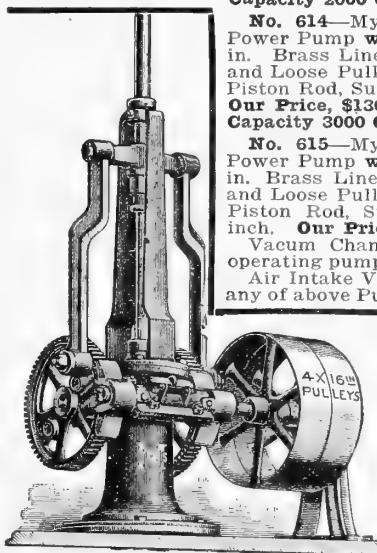
No. 614—Myers Self-Oiling Bulldozer Power Pump with Vacuum Chamber, 4x5 in. Brass Lined Cylinder, 16x4 in. Tight and Loose Pulleys, 1½ in. Brass Covered Piston Rod, Suction and Discharge 2 inch. **Our Price, \$130.00.**

Capacity 3000 Gals. Per Hour at 60 RPM.

No. 615—Myers Self-Oiling Bulldozer Power Pump with Vacuum Chamber, 5x5 in. Brass Lined Cylinder, 16x4 in. Tight and Loose Pulleys, 1½ in. Brass Covered Piston Rod, Suction and Discharge 2½ inch. **Our Price, \$149.50.**

Vacuum Chamber must be used when operating pumps at above specified speeds

Air Intake Valve for Pneumatic use on any of above Pumps. **Our Price, \$2.50.**



Myers Bulldozer Power Working Head

Back Geared 5 to 1.
Has 5, 7½ and 10-inch Stroke.

This working head is built especially for deep well work. Its construction insures great lifting power, strength and capacity.

The gears are located to one side, so that the work is done on the direct upward motion of the piston, passing down on the angle. This insures great lifting power and light wear.

This head is so constructed that by uncoupling the piston and removing the piston rod, a 4-inch plunger can be withdrawn through the head. The pipe is attached to a pipe flange below the air chamber, hence any size pipe from 2 inches to 4¼ inches can be used by changing the flange.

PRICE.....\$99.00

MYERS ALL BRASS WORKING BARREL OR ARTESIAN WELL CYLINDER

The Fig. 1404 Myers Artesian Well Cylinder is made with four cups and bronze-bait valves. This cylinder should be used with Myers Working Heads where it is desired to draw out plunger without taking pipe from well.

Size	Stroke	Piping	Price
2½ inches	14 inches	2½ inches	\$33.50
3¼ inches	14 inches	3½ inches	43.30
3½ inches	14 inches	3½ inches	68.15
3¾ inches	14 inches	4½ inches	85.10

GOULD'S WELL FORCE PUMPS



Fig. 852½.
"STAR" FORCE
PUMP.

ALL PRICES
SUBJECT TO CHANGE
WITHOUT NOTICE.



Fig. 423. STAND.

This cut shows stand only. We can furnish this pump with cylinder extended 4 ft. below platform same as on Fig. 852½.

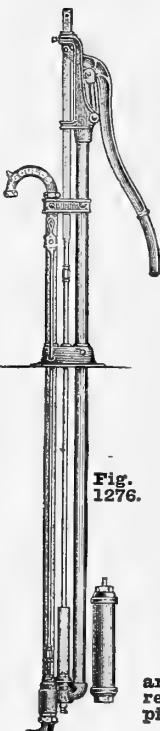


Fig.
1276.

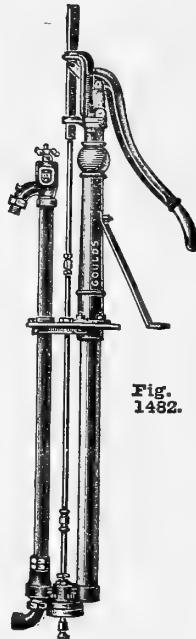


Fig.
1482.

Fig. 1482. WINDMILL FORCE
PUMP WITH THREEWAY.

An ideal pump for artesian wells. Will take either 2½ or 3-in. suction pipe. Cylinder valves and plunger can be removed without taking pipe from well; substantial and convenient. Price of head, as illustrated, without cylinder. Our Price, \$24.50.

No. 445.—ARTESIAN WELL CYLINDER. Galvanized steel case with heavy brass lining; has a four-cup plunger and is fitted with heavy bronze ball tubular well valves; size 2½ 16 stroke top and bottom connections for 2½-inch pipe. Our Price, \$14.75. Size 3-inch 16 stroke top and bottom connections for 3-inch pipe. Our Price, \$19.25.

Prices of Fig. 1482 Threeway Pump fitted complete with No. 445 artesian well cylinder with wood plunger rod; rod having heavy forged couplings with screw connection. The plunger and valves can be drawn out for repairs without removing pipe from well. A high-class, reliable artesian well pump.

Depth of Well.	Size of Cylinder and Well Pipe. 2½-in. 3-in.	WRITE FOR SPECIAL PRICES
30 ft.		
35 ft.		
40 ft.		
45 ft.		
50 ft.		
55 ft.		
60 ft.		
65 ft.		
70 ft.		
75 ft.		
80 ft.		
85 ft.		
90 ft.		
95 ft.		
100 ft.		

Easily fixed. Plunger and Check Valve can be removed without taking pipe from well.

PUMP CYLINDERS

Iron. Our Price.	Brass Lined. Our Price.	Brass. Our Price.
2½x12.....	\$7.85	\$9.75
2½x14.....	9.00	10.90
3x10.....	\$3.75	7.85
3x12.....	.....	9.00
3x14.....	.....	9.75
3x16.....	10.90	11.75
3½x10.....	\$5.25	9.00
3½x14.....	10.80	12.75
3½x16.....	11.65	13.50
4x10.....	\$6.90	11.65
4x14.....	.....	13.50

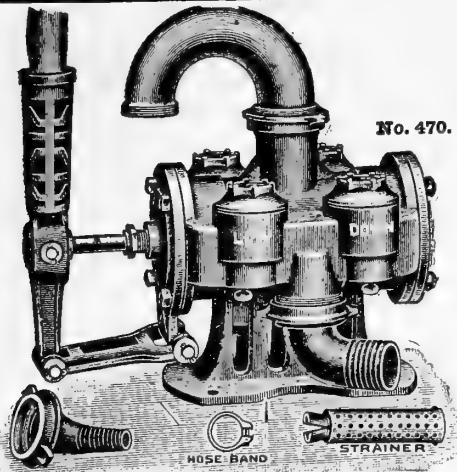
2½ and 3-in. cylinders take 1¼-in. pipe; 3½-in. cylinders take 1½-in. pipe; 4-in. cylinders take 2-in. pipe.

ADDITIONAL FOR FITTING PUMPS

We give below a table of the additional charge for fitting, and the amount stated in table has to be added to the price of the pump selected. In fitting pumps we use galvanized pipe and galvanized pump rod and a strainer foot valve. For wells 26 feet deep or less we leave the cylinder 5 feet below platform. For wells deeper than 26 feet we place the cylinder close to the bottom of the well.

To Change Without Notice	With 1½-in. Pipe for Cylinder	With 1½-in. Pipe for Cylinder	With 2-in. Pipe for Cylinder	With 1½-in. Pipe for Cylinder	With 1½-in. Pipe for Cylinder	With 2-in. Pipe for Cylinder
Depth of Well.	Pumps.	Pumps.	Pumps.	Pumps.	Pumps.	Pumps.
10 feet.....	\$3.60	\$4.30	\$5.00	32 feet.....	\$10.94	\$12.84
12 feet.....	4.10	4.90	5.80	34 feet.....	11.56	13.56
14 feet.....	4.60	5.50	6.60	36 feet.....	12.18	14.28
16 feet.....	5.05	6.10	7.40	38 feet.....	12.80	15.00
18 feet.....	5.55	6.70	8.20	40 feet.....	13.42	15.72
20 feet.....	6.00	7.30	9.00	42 feet.....	14.54	16.94
22 feet.....	6.50	7.90	9.80	44 feet.....	15.16	17.60
24 feet.....	7.00	8.50	10.60	46 feet.....	15.78	18.38
26 feet.....	7.50	9.10	11.40	48 feet.....	16.40	19.10
28 feet.....	9.70	11.40	13.90	50 feet.....	17.02	19.82
30 feet.....	10.32	12.12	14.82	Each additional ft.	.31	.36

Special Prices Quoted on Application for Fig. 1482 Pump Head Fitted Complete.



CENTURY LOW-DOWN DOUBLE-ACTING FORCE TANK PUMP

No. 268

Capacity 2000 gallons per hour, 5-inch polished-iron cylinder, 5-inch stroke, fitted for hose and 2-inch pipe. Valves seats of brass; valves are metal, faced with rubber, and are very conveniently placed, so that they can readily be reached; piston rod is 13-16, drawn polished steel, with heavy brass stuffing nut. Price, with hose nipple, hose attachment, hose band and strainer. **Our Special Price, \$17.00.**

HAYS JACK No. 2

CONSTRUCTION—Tight and loose pulleys, $\frac{1}{4}$ -inch face, mounted on large stationary spindle, one-eighth turn takes up all wear—gear and pinion always in mesh. Special machine cast gear, every tooth uniform. Gear and crank disc keyed to revolving shaft with long bearing. Pinion cast solid with pulley and completely encased, protecting gear and preventing injury.

The jack sets solid on a wide spreading base, which may be bolted to a platform, wall or ceiling. In addition the pump and jack are firmly fastened together with a steel front clamp. This construction eliminates lifting and jerking on the pump and insures longer life and easier running to both pump and jack.

HAYES
PUMP
JACK
No. 2



Hard wood pitman bars, riveted at the end, work in alignment with the pump. Adjustable cross head, easy and exact in adjustment—no holes to bore.

Back geared 5 to 1. Adjustable 5, 7, and 9-inch stroke.

PRICE \$13.50

LOW-DOWN DOUBLE-ACTING HOUSE FORCE PUMP

Very popular for pumping from cisterns or shallow wells into house tanks. They are furnished with either $\frac{1}{2}$ or 3-inch brass-lined cylinder, with 5-inch stroke. Three-inch cylinder pump at 46 complete strokes per minute has a capacity of about 12 gallons per minute, and 2-inch cylinder pump has a capacity of a little over 8 gallons per minute. These pumps have rubber-faced metal valves, brass valve seats and brass-covered piston rod.

Fig. 1372. No. 286.—3-inch cylinder..... Our Special Price, \$23.65
 Fig. 1372. No. 285.— $\frac{1}{2}$ -inch cylinder..... Our Special Price, 23.65
 Fig. 1371. No. R286.—3-inch cylinder..... Our Special Price, 25.35
 Fig. 1371. No. R285.—3-inch cylinder..... Our Special Price, 25.35

FOR USE WITH PNEUMATIC TANKS.

Fig. 1669, shown below, illustrates the auxiliary air cylinder used on either Fig. 1371 or Fig. 1372 Force Pump for pumping air with water into our Invincible Pneumatic Tanks. If any of these pumps are wanted, equipped with this air cylinder, add \$5.00.

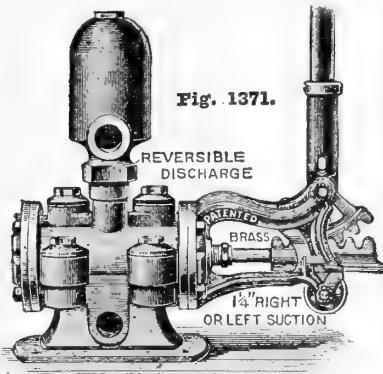


Fig. 1371.

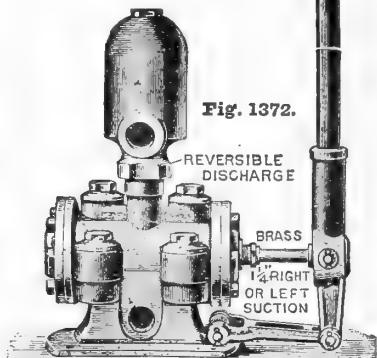


Fig. 1372.

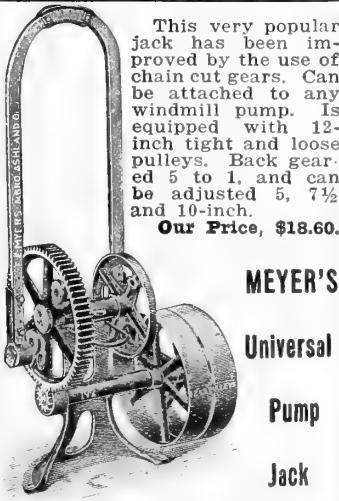
Fig. 1371, Pump.—On account of ratchet or cog gear handle, the leverage is greater and a direct stroke on piston is obtained.

No. 400 TRIUMPH JUNIOR PUMP JACK OR COUNTERSHAFT

Made with machine-cut gear; back geared 5 to 1; 4 and 6-inch stroke, especially designed for use in connection with a horizontal hand pump. The cut shows the manner of attaching jack to pump. Can be used also as a countershaft. Furnished with or without rod connection. Triumph Junior Jack complete with wood rod as illustrated. **Our Price, \$17.40.** Without wood rod and pump clamp. **Our Price, \$15.50.**

No. 366 MEYERS PUMP JACK

This Jack is back geared 6 to 1. Has machine-cut gears; 6 and 9-inch stroke; furnished with 12-in. tight and loose pulleys. The connecting rods are hard wood. Crosshead can easily be adjusted to suit height of pump stand. **Our Price, \$15.50.**



Universal Pump Jack

No. 400
Pump Jack

F.E. MEYERS & BRO. ASHLAND, O.

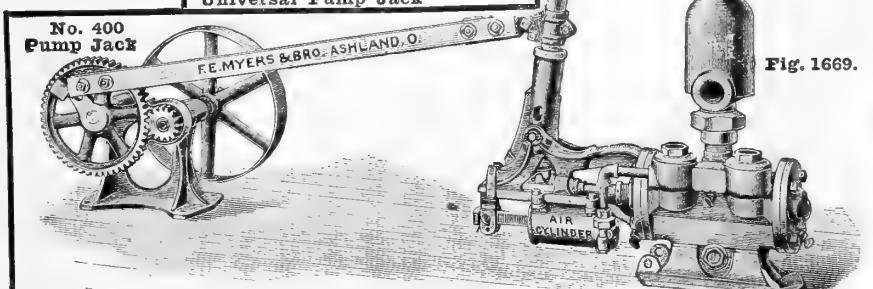
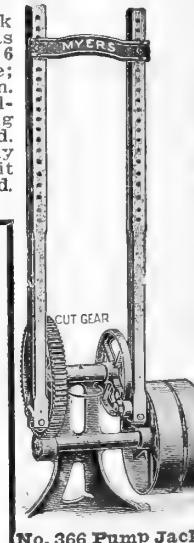


Fig. 1669.



No. 366 Pump Jack

CLOSED TOP PITCHER SPOUT PUMP

SIZES AND PRICES.

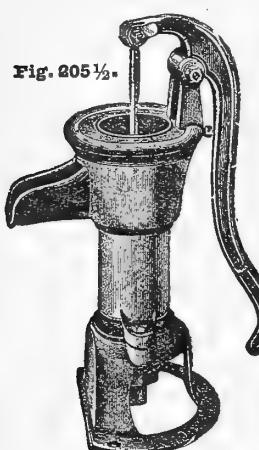


Fig. 205 1/2.

No. 2—Diameter of Cylinder, 3 in.; Suction, 1 1/4 in. Polished Iron Cylinder. Retail, \$3.00.

No. 3—Diameter of Cylinder, 3 1/2 in.; Suction, 1 1/4 in. Polished Iron Cylinder. Retail, \$3.25.

PITCHER PUMP LEATHERS.

No. 1—Valve and flat Plunger Leathers, each, 12c.

No. 2—Valve and flat Plunger Leathers, each, 16c.

No. 3—Valve and flat Plunger Leathers, each, 21c.

No. 1—2 1/2-inch Leather Cups, 20c.

No. 2—3-inch Leather Cups, 25c.

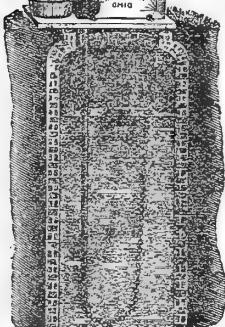
No. 3—3 1/2-inch Leather Cups, 30c.

BRASS JACKET DRIVE WELL POINTS

No.	Diameter of Pipe.	Length.	No. 60 Gauge, Retail List Price, Price, Per Doz. Each.	
			\$36.00	\$2.00
90	1 1/4	24 in.	46.00	2.55
94	1 1/4	30 in.	56.00	3.10
98	1 1/4	36 in.	76.00	4.20
102	1 1/4	48 in.	48.00	2.70
136	1 1/2	24 in.	60.00	3.35
140	1 1/2	30 in.	72.00	4.00
144	1 1/2	36 in.	96.00	5.35
148	1 1/2	48 in.		
Malleable Drive Caps, Hexagon-shaped, for 1 1/4-inch Pipe.....			60c.	
Malleable Drive Caps, Hexagon-shaped, for 1 1/2-inch Pipe.....			60c.	

I X L GALVANIZED STEEL CHAIN PUMP

Being made of No. 24 gauge galvanized steel, this pump will not rot, rust nor accumulate filth like pumps of less desirable construction, and it makes the water clear and pure. It is anti-freezing, as the reservoir piece has a small hole, which allows the water to run out. This style of pump is practical for use in wells as deep as 40 feet. The term curb means the complete upper part of pump with fixtures.



IXL CURB.

PRICES.

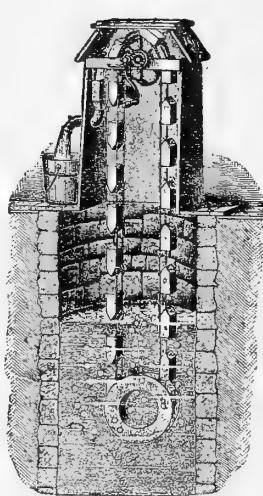
I X L Curb.....	\$7.00
Gem Curb	5.50
Tubing, per foot.....	.20
Coupling .....	.50
Rubber Buckets .....	.12
Iron Platform	10.00
Chain, per lb.....	.15

DIRECTIONS FOR FITTING UP CHAIN PUMPS

1. Use one foot more tubing than depth of well
2. Multiply length of tubing by two and add 3 feet 6 inches to get proper length of chain.
3. Rubber buckets should be placed 6 or 7 feet apart.
4. See that tubing is held securely by tubing brace at bottom of curb.



GEM CURB.



No. 2 NATIONAL WATER ELEVATOR and PURIFIER

Purifies by means of oxygen forced into water.

Price: Elevator, with 25-foot chain and japanned bottom wheel for 10-foot cistern, \$15.00.

Extra chain, 30c. per foot.

No. 30 STAR WATER ELEVATOR and PURIFIER

Similar to the No. 2 Water Elevator, except that the buckets are slightly smaller, and there is a slight difference in the way the buckets are coupled together. On account of the smaller bucket, it is considered by some better for deep wells.

Price:—Elevator and 25-foot chain and japanned bottom wheel for 10-foot cistern, \$13.50. Extra chain, per foot, 30c.

E. Z. BUCKET PUMP OR WATER ELEVATOR

The strongest bucket pump built. It is made of the best No. 24 galvanized steel, painted two coats best gray paint, and varnished. It has roller bearings, and they make the pump work easier, wear longer and run practically noiseless.

It has steel top and bottom bands. The buckets are made from the best galvanized steel, roll locked seams throughout.

Fixtures are put on the pump complete, avoiding all trouble in fitting.

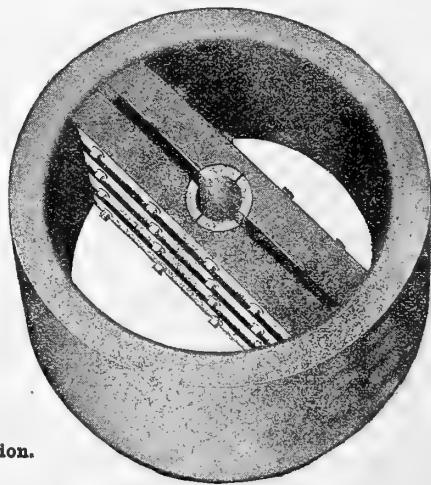
Price—Elevator, with 25-foot chain and galvanized bottom wheel for 10-foot cistern..... \$15.00

I X L Rubber Bucket.	The Queen Rubber Bucket.	Victor Anti-Freezing.	Crosby Swivel Link Bucket, 12c.
Price, 12c.	Price, 10c.	Price, 12c.	Crosby Plain, 10c.

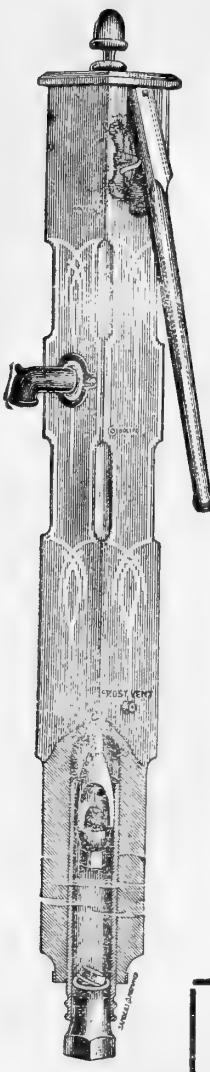
WOOD SPLIT PULLEYS

Practically everlasting; light weight; no glue; no nails; run outdoors or indoors in any climate. The ideal pulley for the farm.

4x4.....
4x6.....
5x4.....
5x6.....
6x4.....
6x6.....
3x4.....
3x6.....
10x4.....
10x6.....
10x8.....
12x4.....
12x6.....
12x8.....
14x4.....
14x6.....
14x8.....
16x4.....
16x6.....
16x8.....
18x4.....
18x6.....
18x8.....



Prices on application.



BALTIMORE WOOD PUMPS

With and Without Porcelain Cylinder.
PRICES OF PUMPS FITTED COMPLETE.

Depth of Well.	6x6 Unlined. Price.	6x6 Lined. Price.	7x7 Lined. Price.
10 feet.	\$11.00	\$13.90	\$16.15
12 feet.	12.50	14.50	16.75
14 feet.	13.10	15.10	17.25
16 feet.	14.60	17.10	19.30
18 feet.	15.20	17.80	20.15
20 feet.	15.80	18.30	20.65
23 feet.		19.30	22.00
25 feet.		21.30	24.30
28 feet.		23.60	27.30
30 feet.		25.60	30.00
33 feet.		28.65	31.35
35 feet.		32.75	35.45
40 feet.		37.85	40.55
45 feet.		43.85	46.50
50 feet.		48.90	51.60

BALTIMORE WOOD PUMPS

NOT FITTED.

"No. 0."—STOCK PUMPS. 7x7 Inches, 4-inch Bore.

Porc. Lined.

Price.

6 feet long.	\$12.75
7 feet long.	13.75
8 feet long.	14.75
10 feet long.	16.75
12 feet long.	18.75
6 feet long, reamed for 6x6 extension pipe, unlined.	10.50

"No. 1."—THE FAVORITE HOUSE PUMPS.

6x6 in., 3½-in. Bore. Porc. Lined.

Price.

6 feet long.	\$10.50
7 feet long.	11.25
8 feet long.	12.50
10 feet long.	13.50
12 feet long.	15.00
6 feet long, reamed for 6x6 extension pipe, unlined.	8.50

PUMPS FOR DRIVE WELLS

To Fit 1¼, 1½, or 2-inch Iron Pipe.

Special No. 1 House, 5 feet wood, Porcelain-lined Cylinder, entire length 6 feet.

PRICE..... \$10.25

TUBING AND MISCELLANEOUS

4x4, 12 feet long and under, per foot.	\$0.30
4x4, over 12 feet, per foot.	.32
6x6 Extension Tubing, per foot.	.80
Cylinder Block, Porcelain Lined, 3 feet long.	4.90
Cylinder Block, Porcelain Lined, 4 feet long.	5.70
Cylinder Block, Porcelain Lined, 5 feet long.	6.50
Cylinder Block, Porcelain Lined, 6 feet long.	7.30
Cylinder Block, Porcelain Lined, 7 feet long.	8.10
Cylinder Block, Porcelain Lined, 8 feet long.	8.90
6x6 Couplings for 4x4 Tubing.	.90
Buckets, 5-in., each, No. 00, Price, \$1.75; 4-in., each, No. 0.	1.50
Buckets, 3½-in., No. 1, each, Price, \$1.25; 3-in., No. 2, each.	1.00
Handle, any size, each, Price, 40c.; Handle Links or Knuckles.	.50
Check Valves, per dozen.	2.00
Iron Connection for Drive Wells, fitted for 1¼-inch and 1½-inch iron pipe.	1.50
Extra Iron Spout, with loose collar.	.50
Extra Wood Spouts, each, Price, 20c.; Extra Spout Braces, each.	.40
Extra Bands, each.	.15
Extra Ears or Brackets, Nos. 35 and 36, each.	.50
1-in. Rod Couplings, pair.	.50
Plunger Rod, per foot.	.05

DEMON GRIP STEEL PUMP ROD COUPLINGS

The steel construction makes the DEMON GRIP COUPLING stronger than the pump rod. In actual use it can never be tested to its limit, but the same grip which enables it to stand such a pull, makes it hold fast to the rod under the constant jar, which wears the thread from a malleable and causes it to be replaced.

See the cut of the DEMON GRIP COUPLING—observe the crack. With this construction it is possible to use oversize rods without destroying the coupling, or having the trouble to either reread the rod or coupling.

The Demon Grip Couplings are made in dies, which forms every one alike; never a curl, every coupling will make a straight rod.

The Demon Grip Coupling with all of its advantages costs no more than a malleable.

Price, each 7c. 100..... \$5.00.

PUMP LEATHERS

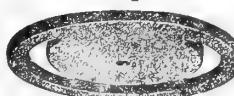
Our pump leathers are cut from the best grade of selected Oak Tan leather. We offer only such leathers as we can recommend as being absolutely high grade.



Plunger Leather Crimped.



Plunger Leather not Crimped.



Suction Valve Leather.



Ring Packing for Cylinders.

Crimped Plunger or Cup Leathers

Each	Each
\$0.10	3½ in....
.10	3½ in....
.12	3¾ in....
.13	4 in....
.15	4¼ in....
.16	4½ in....
.20	4¾ in....
.21	5 in....
.25	

Plunger and Lower Valve Leathers and Ring Packing

Outside Diam.	Cylinder Diam.	Each
2 in.	1½ in.	\$0.10
2½ in.	1¾ in.	.10
2½ in.	2 in.	.10
2¾ in.	2¼ in.	.12
3 in.	2½ in.	.12
3¼ in.	2¾ in.	.15
3½ in.	3 in.	.16
3¾ in.	3¼ in.	.18
4 in.	3½ in.	.22
4½ in.	3¾ in.	.26
5 in.	4 in.	.30

Cups for Buckeye Upper Plunger

1½ in. goes with 2½ in. lower cylinder... 13c.

2 3-16 in. goes with 3 in. lower cylinder... 16c.

2 9-16 in. goes with 3½ in. lower cylinder... 20c.

2 13-16 in. goes with 4 in. lower cylinder... 21c.

Octagon Wood Pump Rods

Wood Pump Rod for artesian wells is made of selected material and fitted with forged couplings.

Size of Rod.	Artesian Well Cylinder.	Price Per Ft.	Substitute.
1½"	1¾" to 2¼"	\$0.15	\$0.60
1¾"	2¼" to 3¼"	.23	.85

The above prices are for rod in standard lengths of from 16 to 20 feet, forged couplings included.

Artesian Well Cylinders

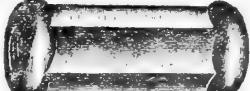
See Pages 201 and 202.

Galvanized Pump Rods and Couplings

¾-inch Round Galvanized Pump Rod in 20-foot lengths, not threaded, per foot, 5c.

7-16 in., 6c.
Threaded with coupling, add 1c. per foot; cut lengths, add 3c.

Galvanized Pump Rod Couplings for ¾ or 7-16 in. rod. 7c. each. 36c. per lb.



CURRY COMBS

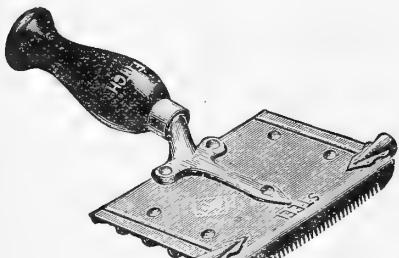
All Steel
Closed Back

No. 800.



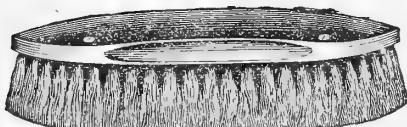
No. 800.—All steel closed back, lacquered, extra size, oval face, curved knockers, braced shank, extending through handle and riveted, enameled handle, brass ferrule, 8 bars.

Packed 1 dozen in a box. Cases made for 24 dozen. List Price, \$4.50 dozen. Our Special Price, 30c. ea.



No. 167.

No. 167.—All steel, closed back, 6 bars, plain knocker lacquered, enameled handle, brass ferrule, oval face and riveted. Packed one dozen in box. List Price, \$3.50 dozen. Our Special Price, 20c. each.

DANDY
BRUSHES

List Price.	Our Special Price.
\$9.00 doz.	\$0.50 each
8.50 doz.	.45 each
14.00 doz.	.75 each

No. 990—Oval Brush \$9.00 doz. \$0.50 each
No. 940—Palmetto Dandy 8.50 doz. .45 each
No. 965—Palmetto Dandy 14.00 doz. .75 each



HORSE MUZZLES

Well made and of good stout wire.

Number 18, Plain List Price, dozen, \$1.20. Our Special Price, each, 10c.

Number 16, Braced. List Price, dozen, \$2.00. Our Special Price, each, 15c.

Number 15, Braced. List Price, dozen, \$2.50. Our Special Price, each, 20c.

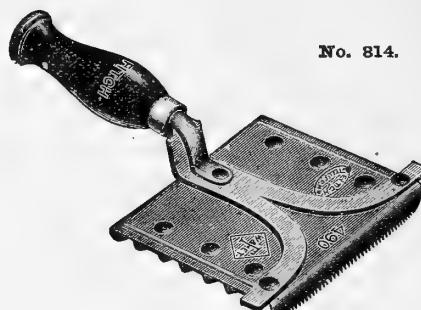
SHEEP DIPPING TANK



This Galvanized Sheep Dipping Tank prevents waste of dip from leaking, and is more convenient than wooden vats heretofore so generally used for the purpose.

No.	Height Feet	Length in Feet Top	Width in Ins. Bottom	Weight lbs. Top	Weight lbs. Bottom	Retail Price
711	3 1/2	6	3	30	12	208 \$35.00
712	4	8	5	20	10	226 43.50
713	4	8	5	24	10	230 45.00
714	4	8	4	30	10	230 46.50
715	4	8	5	30	10	235 46.50

The above prices include roller to prevent injury to sheep, and to assist in placing them in tank, and detachable metal ladder at opposite end to assist sheep in leaving tank and to reach dripping board.



No. 814.

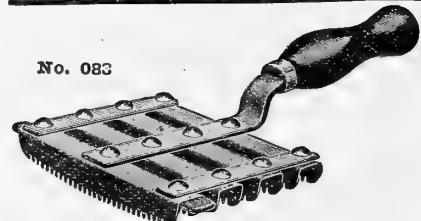
Eight Bars, Extra Heavy.

All steel shank runs through handle and is riveted. Packed one dozen.

List Price, \$5.50

Price, 35c. each.

No. 814T.—All steel closed back; tinned; guaranteed not to rust; extra large size; oval face; eight bars; double braced shank extending through handle and riveted. List Price, \$6.00 dozen. Our Special Price, 40c. each. Packed 12 in a box.

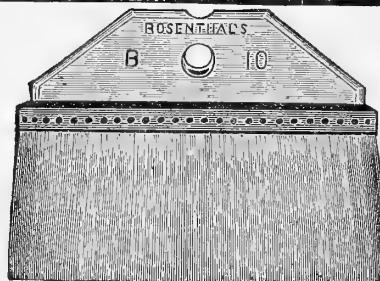


No. 083

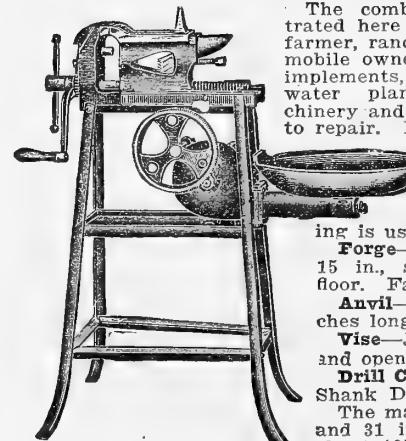
No. 083—8-Bar open back Curry Comb is a very popular comb.

Shank extending through handle and riveted. Enamelled handle.

List Price, \$3.50 doz.
Our Special Price, 20c. each.

Whitewash
Brushes

	List Price.	Our Special Price.
No. 6—Sambo	\$4.50	\$0.30
No. 7—Sambo	6.00	.40
No. 1—Columbia	29.00	1.45
No. 2—Columbia	35.00	1.90
No. 75—Family	35.00	3.00
No. 13—Trademark	80.00	4.00

ROCK ISLAND Combination Forge,
Anvil, Vise, Drill add Pise Vise

The combination machine illustrated here is indispensable to the farmer, ranchman, contractor, automobile owner and others who have implements, tractors, heating and water plants, automobiles, machinery and equipment of any kind to repair. In compactness and accessibility to the various tools it is unequalled.

Frame—The frame is steel, center casting is used for shelf for tools.

Forge—Pan in oval shape, 12x 15 in., stands 27 inches from floor. Fan is 7 inches.

Anvil—3 1/2 inches wide, 12 inches long.

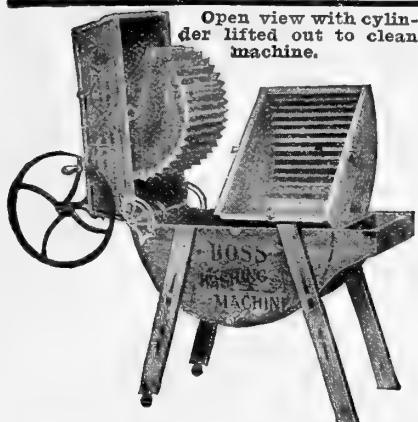
Vise—Jaws are 3 1/2 inches wide and opens 11 inches.

Drill Chuck takes 1/2-in. Round Shank Drill.

The machine is 36 inches high and 31 inches long, and weighs about 135 pounds.

Price—List Price, \$38.00. **OUR SPECIAL PRICE**, \$22.00.

Champion Combination Tool, same as above, but has grinding attachment. List Price, \$44.00. **OUR SPECIAL PRICE**, \$27.00.



Open view with cylinder lifted out to clean machine.

"BOSS" WASHING MACHINES

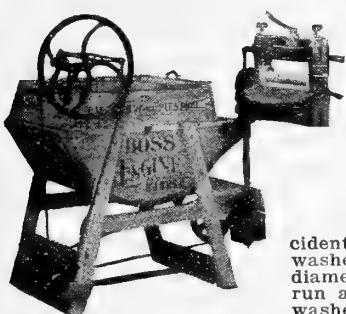
Unlike all other Washing Machines, the "BOSS" does not merely soak the clothes, nor pound nor tumble them, nor churn the water around and among them.

When the top is down and the "BOSS" is operated, the two rub-boards oscillate in opposite directions twice to every revolution of the crank, or 180 times to every turn of the wheel—90 forward and backward strokes every minute. It is this quick double action, and the pressure to the upper rub-board that produces the action similar to the rubbing and squeezing process of washing by the hand method. The clothes, being placed between the two rub-boards, are rubbed and squeezed, rubbed and squeezed, many pieces at a time, nearly 200 times every minute, and it is this **rushing—squeezing—suction-creating action** which forcibly drives the hot soapy water through every mesh and fibre and cleans the most soiled clothes so well that after-rubbing by hand is not necessary.

Made in three sizes—

No. 1—Small Family
No. 2—Medium Family
No. 5—Large Family or Hotel

	Capacity	Weight	Our Special Price
10 Shirts	100 Lbs.	\$15.00	
12 Shirts	105 Lbs.	16.00	
15 Shirts	110 Lbs.	18.00	



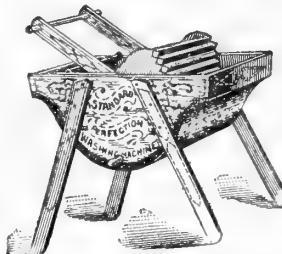
"BOSS" ENGINE POWER WASHER WITH POWER WRINGER

THE WASHER—Is the famous "BOSS" described above, but built especially heavy for power drive. Legs extra heavy, bolted to tub and well braced. Louisiana Red Cypress wood, natural finish. Heavy gauge solid copper bottom, with metal drain faucet. Machine-fit castings, noiseless in operation. Galvanized castings and hardware.

THE WRINGER—Is operated by power and has a safety device which makes wringer accident-proof. Wringer can be swung out from washer in several positions. **PULLEYS**—Six-inch diameter with 2-inch face. Should be connected to run at speed of 300 R. P. M., which will run the washer about 90 R. P. M. and wringer about 65 R. P. M.—the proper speed.

No. 42—Medium Family Shipping Weight, 275 lbs. Our Special Price, \$60.00
No. 43—Large Family Shipping Weight, 300 lbs. Our Special Price, 65.00

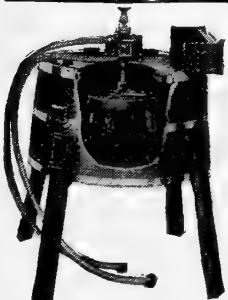
STANDARD PERFECTION



An excellent moderate-price washer, constructed on the rubbing - suction principle—with adjustable cylinder above—removable rub-board below. Made of cypress; natural finish. Galvanized castings and hardware.

ONE SIZE ONLY.

Capacity, 6 shirts. Shipping weight, 45 lbs.
OUR SPECIAL PRICE, \$7.50.



GEARLESS MOTOR

FOR CITY WATER POWER—Guaranteed for any pressure over 20 lbs.

Motor is constructed on the turbine principle of direct action—no gears or racks—only two self-lubricating bearings—only two well-protected and practically indestructible springs—heavy brass cylinder—and parts perfectly machined—perforated metal screen before intake port to prevent anything getting into the cylinder. Consumes less water than most washer motors, and will operate on very low pressure. Dasher post adjusts through top of motor—no projection below dasher. Furnished with high-grade intake and exhaust hose. Large cypress tub—natural finish—with all improved features.

Capacity, 8 shirts. Shipping weight, 60 pounds.

OUR SPECIAL PRICE \$23.50

QUEEN CONVERTIBLE MOTOR WASHER



The lever can be fastened on top of the motor and used as a hand washer. This is often desirable in winter when surface drainage would result in ice.

In case of moving where there is no water pressure, it can be made into a hand-power machine and, of course, hand-power Queens can easily be changed to power washers.

Durability—While its extreme simplicity adds greatly to its durability, no expense is spared to secure the very best materials, of which the **White Cedar Tub**, which never rots, is an important item.

Malleable castings, wrought iron or steel, and bolts instead of

CINCY HIGH SPEED WASHER for Hand or power

Is operated by lever with high-speed flywheel geared to make 300 revolutions per minute—this terrific momentum creating sufficient power to practically run the washer without exerting the operator. The flywheel is grooved so a belt may be used on it, making this a hand and power washer in one. Machine can be directly belted to an engine or line shaft and can be opened or closed without shutting off the power or throwing off the belt. Large cypress tub—natural finish and all improved features. Capacity 8 shirts. Shipping weight 90 lbs.

Belt Pulleys, extra, \$3.50.

OUR SPECIAL PRICE, \$20.00.

THE R. C. W. WATER MOTOR WASHER

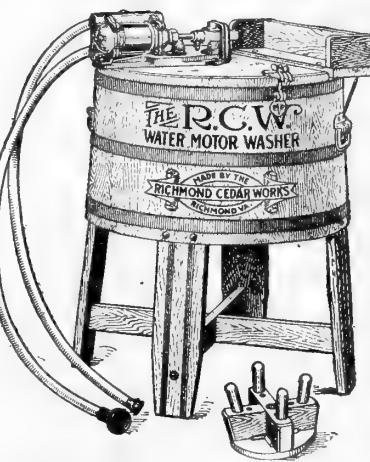
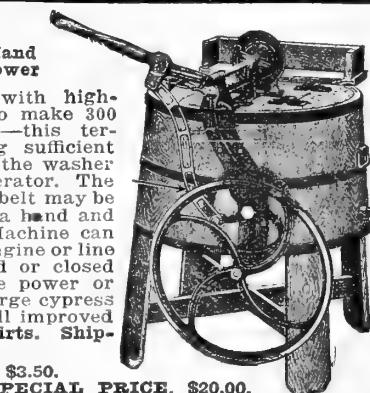
THE R. C. W. WATER MOTOR WASHER is equipped with the Horizontal, Piston Type of Water Motor, some users prefer this type of motor, which is a very good one.

The tub is made from first-grade white cedar, which is the best material obtainable for this purpose.

The construction of this machine is the best, and with proper care should last many years, and give the very best service.

PRICE

Screws, are used wherever necessary and all are made durably rust proof. **PRICE** \$25.00



ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

2-IN-1 POWER WASHER



GENERAL DESCRIPTION

The "2-in-1" Washer consists of tub, swinging wringer, bench and two iron stands. The wringer can be operated in four different positions and the rollers have the forward and the backward motion; the entire action of the wringer and washing machine being controlled by push buttons which are at the instant command of the user.

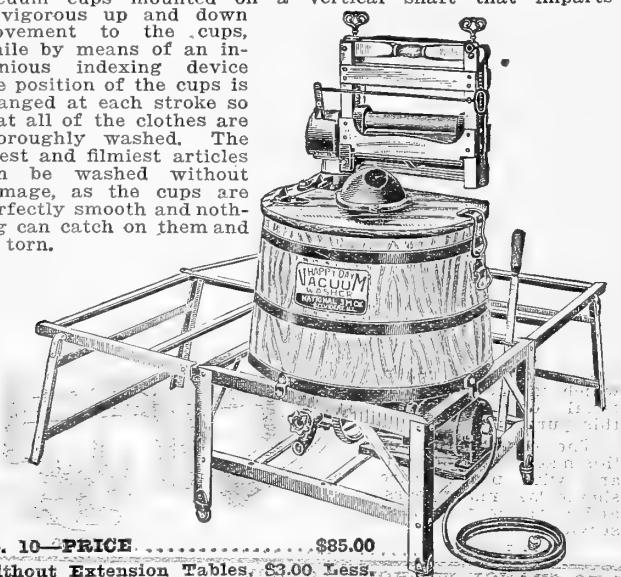
The tub is of regulation size, built of the best cypress that can be had for the purpose and corrugated both sides, inside and bottom, thus presenting a large rubbing surface. The dolly or clothes agitator is made of seasoned gum with hard maple pegs securely fastened. The top of the tub or the lid of the machine is so built that you can readily transfer it from the top of the machine into position on frame over any tub, thus converting any tub into a washing machine. It drains from the bottom by means of a faucet.

The bench is 4 ft. 2 in. long by 27½ in. wide and extends 12 in. in height from the floor; when complete with tub and wringer in position ready for operation, the entire height over all is 3 ft. 6 in. It will go through any regular size door.

Complete, with Wringer. PRICE, \$60.00

ELECTRIC VACUUM WASHER

THE ELECTRIC VACUUM WASHER is so constructed that it eliminates all the faults of the ordinary washing machine and offers more real practical improvements than any other. The clothes are thoroughly cleansed by means of three large vacuum cups mounted on a vertical shaft that imparts a vigorous up and down movement to the cups, while by means of an ingenious indexing device the position of the cups is changed at each stroke so that all of the clothes are thoroughly washed. The finest and filmiest articles can be washed without damage, as the cups are perfectly smooth and nothing can catch on them and be torn.



No. 10—PRICE \$85.00

Without Extension Tables, \$3.00 less.

HAPPY DAY ELECTRIC WASHER

IN CONSTRUCTION AND FINISH this machine is unexcelled. It is very simple and every part of the mechanism is not only carefully fitted, but of great strength. With proper care the "Happy Day" Electric Home Laundry Machine will last for many years. The tub is made of selected Southern Cypress—"the wood everlasting"—finely finished with good quality varnish. All of the mechanism and gearing, together with the motor, is placed underneath the tub on a heavy iron bracket, which also acts as a strong brace for the legs. Every metal part of this machine is sherrardized—a finish that is far more attractive than paint and as it will not peel or check, will last for a life-time and effectually prevent rust. Each one of these machines is fitted with strong, easy-running casters, which allow it to be moved easily from place to place and the motor is protected from any possibility of splashing water, by a guard or cover.

No. 26—ELECTRIC WASHER, \$67.50

No. 25

HAPPY DAY WASHER

Price \$50.00

IN CONSTRUCTION AND FINISH this machine is unexcelled. It is very simple and every part of the mechanism is not only carefully fitted, but of great strength. With proper care the "Happy Day" Power Home Laundry Machine will last for many years. The tub is made of selected Southern Cypress—"the wood everlasting"—finely finished with good quality varnish. All of the mechanism and gearing is placed underneath the tub on a heavy iron bracket, which also acts as a strong brace for the legs.

Every metal part of this machine is sherrardized—a finish that is far more attractive than paint and as it will not peel or check, will last for a life-time and effectually prevent rust. Each one of these machines is fitted with strong, easy-running casters, which allow it to be moved easily from place to place.

No. 25 POWER WASHER.

PRICE, \$50.00

The Electric Vacuum Washer and the Power Vacuum Washer are the same construction, the difference being in the power used.

THE FRAME, OR STANDARD is made of angle steel, the different pieces being securely riveted to each other, forming an exceedingly strong and rigid frame, which at the same time, is not heavy nor cumbersome. The entire frame has electro galvanized, non-rust finish, and is mounted on strong steel casters which allow the machine to be readily moved from place to place.

THE STEEL EXTENSIONS for holding three extra tubs, are hinged to the sides of frame and provide substantial supports for the tubs.

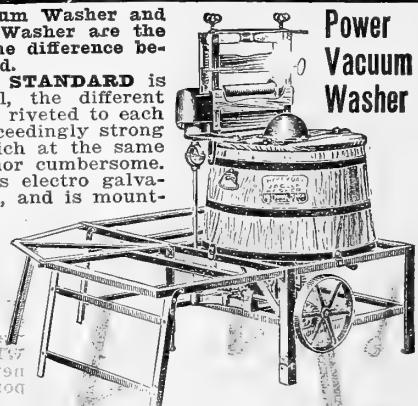
When not in use, these extensions are folded up close against the tub and are entirely out of the way. The complete machine then occupies no more space than the ordinary one-tub electric.

No. 29—PRICE, \$60.00. Without Extension Table, \$3.00 less.

HAPPY DAY ENGINE POWER WASHER



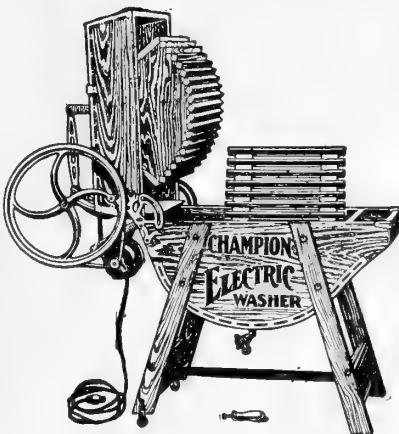
Power Vacuum Washer



CHAMPION ELECTRIC WASHER

A high-grade Washing Machine complete with best make electric motor, at such a moderate price that every home can afford to have one. Sold entirely on its merits.

The Champion Electric is furnished complete with motor, as illustrated, and is ready for use by simply screwing the attachment plug into the nearest electric light socket and turning the switch. The machine needs no attention whatever while running, and is absolutely trouble-proof, but in case of emergency it can be operated by hand by simply attaching the wheel-handle furnished for the purpose.



Open View.

Consider These Advantageous Features.

Metal drain faucet with hose connection. Every drop of water is drained from machine without tilting the tub or splashing the water on the floor.

Rollers on the legs. One person can easily handle the machine and move it about.

Self-adjusting cylinder—makes it possible to wash a large or small load equally as well.

Lower rubboard is removable. Machine can be easily and thoroughly cleaned after use.

Use of motor is not limited to operating limited to operating

the washer only—it can be used to operate a churn, ice-cream freezer or any small household appliance adapted for the purpose.

The Champion Electric Is Built to Last a Lifetime.

The tub and all wood parts are Louisiana Red Cypress—the most durable and satisfactory wood known for washing machine construction. Finished natural with water proof varnish.

The mechanism is extremely simple—has no gears or breakable parts. The machine-fit bearings make it noiseless in operation. Inside iron parts and hardware are heavily galvanized and rust-proof.

The motor is high grade standard make, constant duty type, with ample power to operate the washer with maximum load. No better motor is made.

It is mounted on an adjustable bracket, making it very easy to take up any slack in the belt when necessary. As attached the motor counter-balances the weight of the cover—making the machine very easy to open—a child can handle it.

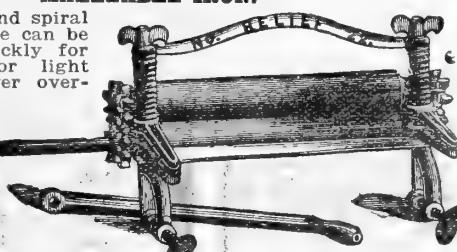
No. 2—Regular Family Size. \$60.00

No. 3—Large Size. 65.00

RELIEF WRINGER

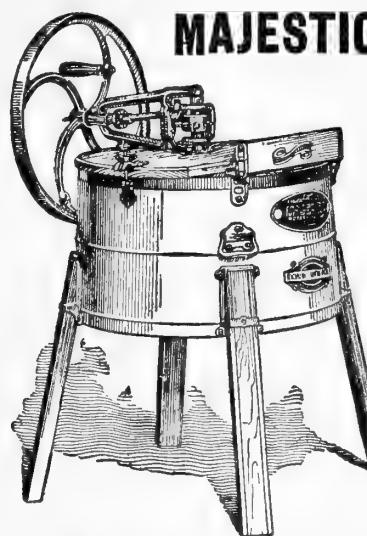
FRAME MADE ENTIRELY OF WROUGHT AND MALLEABLE IRON.

Thumb-nuts and spiral springs; pressure can be adjusted quickly for either heavy or light work; rolls never overstressed; wear longer than ordinary iron-frame Wringer. Packed four to a case.



No. 330—SMALL FAMILY—Size of Rolls, 10x1 1/4-in. \$5.75
 No. 331—LARGE FAMILY—Size of Rolls, 11x1 1/4-in. 6.25
 No. 330—Rolls, 10-inch, each. 2.00
 No. 331—Rolls, 11-inch, each. 2.25

MAJESTIC



ROTARY WASHER
ELECTRIC WELDED WIRE HOOPS.

VIRGINIA WHITE CEDAR TUB.
ROLLER BEARINGS.

This is the lightest-running and easiest-working Washing Machine made. Roller bearings; no friction. Works in both directions. Very simple; nothing to get out of order. Nicely corrugated on sides and bottom. Hoops are galvanized wire and are welded by electricity; these are much stronger than the old-style flat hoops, and CANNOT DROP OFF, being sunk in grooves.

OUR SPECIAL PRICE,
\$14.25.



BALTIMORE CEDAR WASHER
ELECTRIC WELDED WIRE HOOPS.
\$10.00

Our Special Price,
Constructed of best white cedar; improved gearing; all castings japanned. Inside fully corrugated like a washboard; no nails; no crevices for dirt, and allowing no steam to escape or water to leak. A square galvanized-iron rod, instead of wood, to work the dolly; this can be lowered or raised without moving tops. Accommodates itself automatically to quantity of clothes. Impossible to tear the most delicate fabric. Our Special Price, \$10.00.

SUPERIOR WRINGERS

Name.	Size of Rolls.	Price.
Superior, No. 210	10x1 1/4-inch	\$5.00
Superior No. 211	11x1 1/4-inch	5.50
CRESCENT —Same as Relief, but cheaper grade rolls.		
No. 130	10-inch	5.25
No. 131	11-inch	5.75

EXTRA ROLLS—

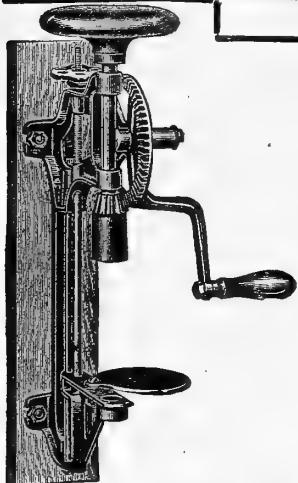
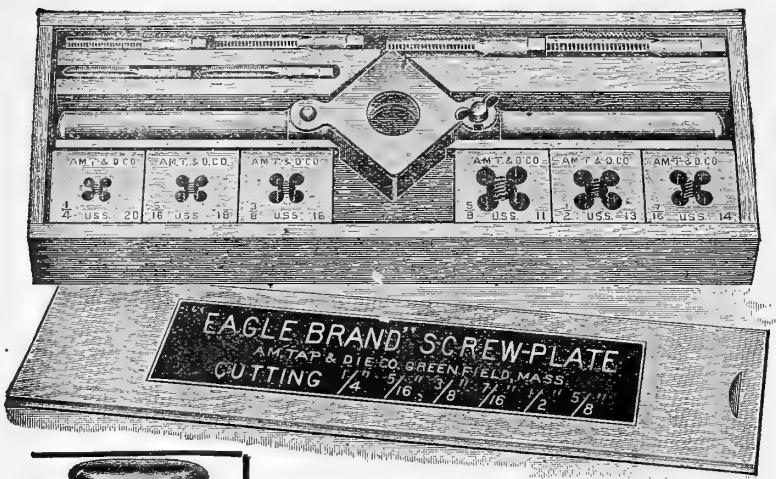
Superior	10-inch	2.00
Superior	11-inch	2.25



UNIVERSAL WRINGER

The Universal Wood Frame Wringer has Thumb Screw and leaf spring pressure which is quickly adjusted.

The rolls are the best quality and are warranted for family use for three years. No. 351—Size of Rolls, 11x1 1/4-in. \$6.25
 No. 352—Size of Rolls, 12x1 1/4-in. \$6.75
 No. 356—Size of Rolls, 14x1 1/4-in. \$7.50



LUTHER POST DRILL

Luther Post Drills have the feature of higher-priced drills. The frame is built solid, and is well braced. It may be bolted or screwed to a post or an upright, and holds any ordinary Bit Stock Drill. The work is fed by a hand screw at the top, and can be adjusted to suit the quality of work in hand. When a hole is to be bored in any material, it is very handy to have one of these drills at hand, as it avoids many hours' delay, if you had to carry the work to a repair shop. The size of the work which these drills are capable of doing is altogether according to the hardness of the material which is being bored and the strength of the person doing the work.

Price.....\$6.00.



MACHINE BOLTS

Length, Inches.	List, 100.		Retail, Each.		List, 100.		Retail, Each.	
	1/4	5/16	3/8	1/2				
1 1/2	\$1.70	.03	\$2.00	.03	\$2.40	.03	\$3.60	.04
2	1.78	.03	2.12	.03	2.56	.03	3.86	.04
2 1/2	1.86	.03	2.24	.03	2.72	.03	4.12	.05
3	1.94	.03	2.36	.03	2.88	.04	4.38	.05
3 1/2	2.02	.03	2.48	.03	3.04	.04	4.64	.05
4	2.10	.03	2.60	.03	3.20	.04	4.90	.05
4 1/2	2.18	.04	2.72	.04	3.36	.05	5.16	.06
5	2.26	.04	2.84	.04	3.52	.05	5.42	.06
5 1/2	2.34	.04	2.96	.04	3.68	.05	5.68	.06
6	2.42	.04	3.08	.04	3.84	.05	5.94	.06
6 1/2	2.50	.04	3.20	.04	4.00	.05	6.20	.07
7	2.58	.04	3.32	.04	4.16	.05	6.46	.07
7 1/2	2.66	.04	3.44	.04	4.32	.05	6.72	.07
8	2.74	.05	3.56	.05	4.48	.06	6.98	.07
9	2.90	.05	3.80	.05	4.80	.06	7.50	.07
10	3.06	.05	4.04	.05	5.12	.06	8.02	.07
11	3.20	.05	4.28	.05	5.44	.06	8.54	.07
12	3.38	.05	4.52	.05	5.76	.06	9.06	.08
13					6.08	.06	9.58	.10
14					6.40	.06	10.10	.10
15	For Other Sizes Write		6.72	.06	10.62	.12		
16	Prices.		7.04	.06	11.14	.12		
17			11.66	.12				
18			12.18	.15				
19	For Plow Bolts See Page 149.		12.70	.15				
20			13.22	.15				

All 1/4-inch bolts are packed 100 in package. All 5/16-inch, 3/8-inch and 1/2-inch bolts are packed 50 in package.

EAGLE SCREW PLATE

This screw plate is made especially for the farmer. It is made from the best material, and will be found one of the handiest tools on the farm. All bolts that have become bruised can be rethreaded in a minute, and save lots of time and worry. Can also be used for threading iron rods, which may be used for many purposes. The sizes run 1/4 in., 5-16 in., 3/8 in., 1/2 in. and 5/8 in. These are the sizes generally used. Taps and dies are both included in the price, and the whole outfit is packed in a nice wooden box.

Price.....\$15.00

SILVER & DEMING DRILLS



NO. 112. SHORT LENGTH.

Fitting Boynton & Plumer and Silver & Deming Blacksmith's Drill Presses, Nos. 1 and 2, with shanks 1/2-inch diameter.

Diam.	Length, in.	Retail, Pr. ea.	Diam.	Length, in.	Retail, Pr. ea.
1-8	4 7/8	\$0.45	13-16	1	\$1.35
5-32	4 7/8	.48	27-32	6	1.40
3-16	5 5/8	.50	7-8	6	1.45
7-32	5 5/8	.55	29-32	6	1.50
1-4	6	.60	15-16	6	1.60
9-32	6	.65	31-32	6	1.70
5-16	6	.70	1	1.80	
11-32	6	.73	1 1-32	6	1.90
3-8	6	.75	1 1-16	6	2.00
13-32	6	.78	1 3-32	6	2.10
7-16	6	.80	1 1-8	6	2.20
15-32	6	.83	1 5-32	6	2.25
1-2	6	.85	1 3-16	6	2.30
17-32	6	.88	1 7-32	6	2.35
9-16	6	.90	1 1-4	6	2.40
19-32	6	.95	1 9-32	6	2.50
5-8	6	1.05	1 5-16	6	2.60
21-32	6	1.10	1 11-32	6	2.70
11-16	6	1.15	1 3-8	6	2.80
23-32	6	1.20	1 13-32	6	2.90
3-4	6	1.25	1 7-16	6	3.00
25-32	6	1.30	1 15-32	6	3.10
	1	1-2	6	3.20	

The above drills have shanks 2 1/4 inches long and 1/2 inch diameter.



CARRIAGE BOLTS

Length, Inches.	List, 100.	Retail, Each.	List, 100.	Retail, Each.	List, 100.	Retail, Each.
	1/4	3/8	5/16	1/2		
1 1/2	\$1.00	\$.03	\$1.90	\$.03	\$1.40	\$.03
2	1.08	.03	2.06	.03	1.52	.03
2 1/2	1.16	.03	2.22	.03	1.64	.03
3	1.24	.03	2.38	.04	1.76	.03
3 1/2	1.32	.03	2.54	.04	1.88	.03
4	1.40	.03	2.70	.04	2.00	.03
4 1/2	1.48	.04	2.86	.04	2.12	.04
5	1.56	.04	3.02	.04	2.24	.04
5 1/2	1.64	.04	3.18	.04	2.36	.04
6	1.72	.04	3.34	.04	2.48	.04
6 1/2	1.80	.04	3.50	.04	2.60	.04
7	1.88	.04	3.66	.04	2.72	.04
7 1/2	1.96	.04	3.82	.04	2.84	.04
8	2.04	.05	3.98	.05	2.96	.05
8 1/2	2.12	.05	4.14	.05	3.08	.05
9	2.20	.05	4.30	.05	3.20	.05
9 1/2	2.28	.05	4.46	.05	3.32	.05
10	2.36	.05	4.62	.05	3.44	.05
11	2.52	.05	4.94	.05	3.68	.05
12		.05		.05	.05	.08

BIT STOCK DRILLS

FOR METAL OR WOOD, No. 109.

Diameter.	Retail Price, Per Dozen.	Retail Price, Each.
2-32	\$1.50	\$0.14
3-32	1.65	.16
4-32	2.10	.20
5-32	2.60	.24
6-32	3.10	.29
7-32	3.60	.33
8-32	4.10	.38
9-32	4.70	.43
10-32	5.40	.48
11-32	6.30	.54
12-32	7.20	.62
13-32	8.00	.68
15-32	9.60	.82
16-32	10.30	.87
9-16	14.35	1.20
5-8	16.15	1.35
3-4	19.75	1.65

These Drills will fit any brace on the market. Will drill steel, iron or other metals as well as wood. Will bore any kind of wood without splitting.

G. & T. Co.'S Farmers' Handy Outfit of Blacksmith's Tools

Consists of the following: 1 100-LB. EAGLE STEEL FACE ANVIL, 1 35-LB. WROUGHT IRON SOLID BOX BLACKSMITH'S VISE, 1 (No. 102) 60-LB. DOUBLE GEARED SELF-FEED HAND POST DRILL; 1 (No. 85) PORTABLE FORGE, 33" high, 22" hearth, 9 $\frac{1}{4}$ " fan.

Fireplace separate from hearth, which saves breakage in expansion and shrinkage, heats 2" diameter iron to welding heat; one set of stocks and dies to cut $\frac{1}{8}$ to 3-16", 1 $\frac{3}{4}$ " hot cutter, 1 $\frac{3}{4}$ " cold cutter, 1 hardie, 1 2-lb. blacksmith's hand hammer, 1 farrier's hammer, 1 20" straight lip tongs, 1 20" bolt tongs, 1 14" pincers and 1 IXL farrier's knife.

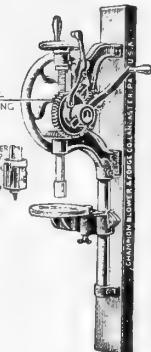
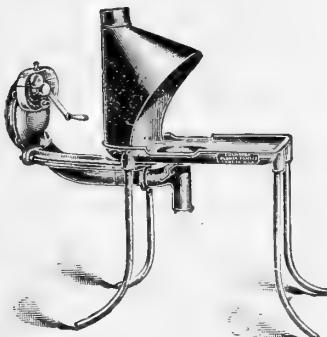


Fig. No. 102

Portable Forges



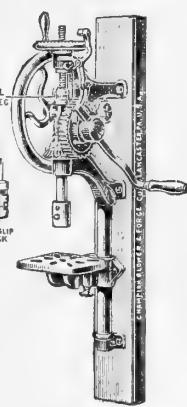
No. 43

No. 150 Hearth—18 in.; Height, 30 in.; Fan, 8 in.; Weight, 80 lbs. \$13.00.

No. 85 Hearth—22 in.; Height, 33 in.; Fan, 9 $\frac{1}{2}$ in.; Weight, 100 lbs. \$23.00.

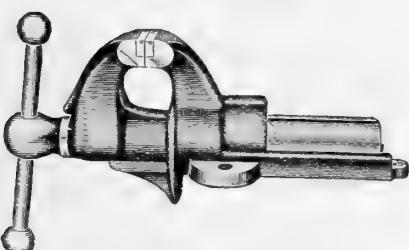
No. 43 Hearth—23x35 in.; Height, 33 in.; Fan, 12 in.; Weight, 110 lbs. \$41.75.

SELF FEED BLACKSMITHS' POST DRILLS



No. 91
PRICE \$18.50

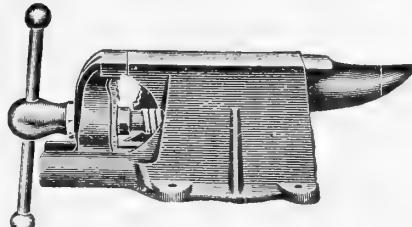
Rock Island Oval SLIDE VISE



A superior vise in this style. Has tool steel jaws.

No.	Size.	Opens.	Weight.	Retail Price.
361	2 $\frac{1}{2}$ in.	3 $\frac{3}{4}$ in.	8 lbs.	\$2.50
362	3 in.	4 in.	14 lbs.	3.00
363	3 $\frac{1}{2}$ in.	4 $\frac{1}{2}$ in.	22 lbs.	3.75
364	4 in.	4 $\frac{1}{2}$ in.	30 lbs.	5.35
365	5 in.	4 $\frac{1}{2}$ in.	35 lbs.	8.00

Rock Island Anvil Vise

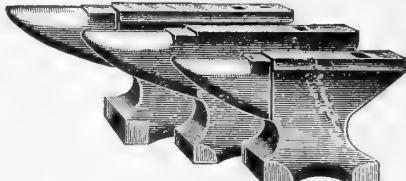


Anvil and vise combined, with jaws for holding pipe.

This vise is intended only for light work. This is the best finished vise of this type on the market. Has steel screw with cut threads, steel nut, and cold-rolled steel handle. Anvil and all finished parts highly polished and lacquered.

No. 380—Width jaw, 3 inches; opens 5 inches; weight, 26 pounds. **Retail Price**, \$2.50.

ANVILS



These anvils are ideal for farm and shop use.

Eagle cast steel with steel face. 100 lbs. per lb., 32c.

Rock Island Semi-Steel, each, 50 lbs., \$4.25; 75 lbs., \$6.50; 100 lbs., \$8.50.

BLACKSMITH SLEDGES

10 lbs., 15 lbs., 20 lbs. Per lb..... 18c.

STONE SLEDGES

10 lbs., 15 lbs., 20 lbs. Per lb..... 18c.

NAPPING HAMMERS

1 $\frac{1}{2}$ to 4 pounds. Per lb..... 25c.

OIL CANS

We Carry in Stock a Full Line of Oil Cans for All Kinds of Farm Machinery for Harvester and other Oils. See Page 145.

No. 1140.
Straight
Spout.
No. 1141.
Bent spout.
They have
large open
mouths, and
can be easily
filled without
a funnel.



Price
each
20c

No. 601.
Copperized
Steel Mow-
ing Machine
Oiler.

No. 601.
Bent or
Straight
Spout.



Price
each
35c

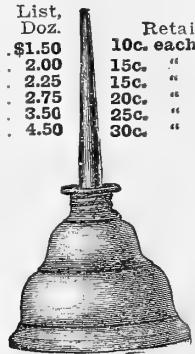
TIN ENGINEERS' OLIERS

Prices:
1 pint.....**50c.**
1 quart.....**60c.**



Chace Zinc Oliers

No.	List, Doz.	Retail— 10c. each.
1.....	\$1.50	15c. "
2.....	2.00	15c. "
3.....	2.25	15c. "
4.....	2.75	20c. "
5.....	3.50	25c. "
6.....	4.50	30c. "



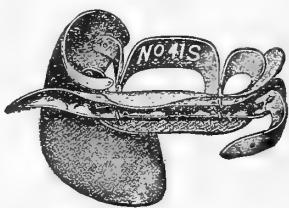
HUSKING PINS



No. 06-Y

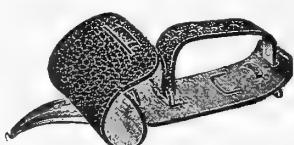
No. 06-Y—Large mule skin finger cot protected with steel washers from wear. Mounted on cold rolled steel pin, nickel-plated, with two compartment finger strap and buckle adjustment **20c.**

No. 7-Y—Same as 06-Y, with cot more open between the fingers. Grain leather **20c.**



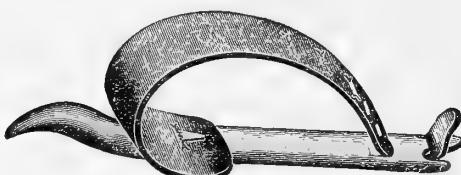
No. 41

No. 41—Heavy narrow steel pin nickel-plated, with extra large elk leather shield covering the ends of three fingers or laced to form a finger cot with divided finger strap to support knuckle. Sliding ring making three compartments and buckle adjustment **25c.**



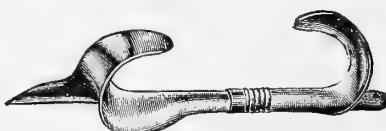
No. 100-Y

No. 100-Y—Cold rolled steel $4\frac{1}{2}$ inches, nickel-plated pin with split leather shield and double compartment, adjustable finger strap **15c.**



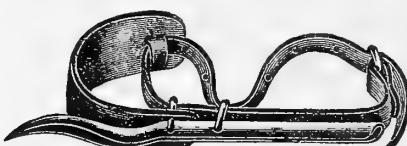
No. 00X

No. 00X—Clark's "Hickory" Pin $4\frac{1}{2}$ inches long, made of best cold rolled steel, with one compartment **10c.**



No. 2700

No. 2700—Small round handle that will not cut fingers and on which the front and back brace swing in and out of plane with each other when fingers open and close, preventing blisters. Perfect fit for every hand. Set rigid for any size. Heavy steel nickel-plated **15c.**



No. 202

No. 202—Clark's "All-in-One" round steel pin, formed perfectly round in the fingers with unusually strong narrow bowl and point. Heavy chrome leather shield with three compartment finger strap and buckle **20c.**

Novelty Lawn Weeder

A Great Back-Saver.



The curved edge of the blade enters and loosens the soil; pressure on the lever then causes the toothed jaw to grasp the plant, and a slight pull will dislodge it without disturbing the surrounding sod.

Price, \$1.25.

Dandelion Puller

To Kill Dandelions You Must Get the Roots.

You slide the steel trowel-shaped blade of the puller straight down into the soil close to weed. Then push the handle toward the weed, and pull up.

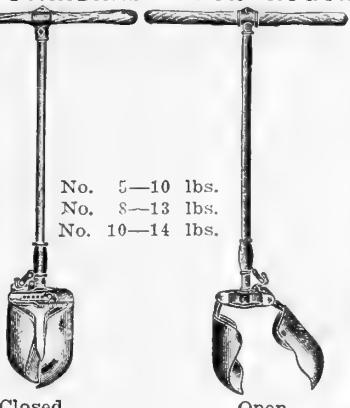
The root is caught by a patented double-tooth prong,

which projects from inside of the blade, and up comes the root to the last inch, nothing left to start new growth. As the pull is directly up, the ground and lawn around the weed is undisturbed. The clog-proof prong which gets the root is the patented feature. Besides Dandelions, it pulls plantain and other weeds.

Price, \$1.00.



THE STANDARD EARTH AUGUR



No. 5—10 lbs.
No. 8—13 lbs.
No. 10—14 lbs.

Prices.

No. 5 bores four different size holes, 5, 6, 7 and 8 inches in diameter, 3½ feet deep. Each, \$5.50.
No. 8 bores seven different size holes, 8, 9, 10, 11, 12, 13 and 14 inches in diameter, 3½ feet deep. Each, \$6.50.
No. 10 bores nine different size holes, 8, 9, 10, 11, 12, 13, 14, 15 and 16 inches in diameter, 3½ feet deep. Each, \$7.25.
3-inch Iwan Post Hole Augur.....\$4.00
4-inch Iwan Post Hole Augur.....4.50

GIBB'S POST-HOLE DIGGER

Digs faster, works easier than any other on the market. All wearing parts have steel pins. Makes a hole of any desired diameter. First-class for tree-planting.

PRICE.....\$2.50



SNOW SCRAPER



SNOW SCRAPER BLADES made of high carbon shovel steel. Will wear a long time. Castings of best malleable fastened to blades and handle; Handles of ash, tough, strong and smoothed. All metal parts given a coat of black paint.

15-inch wide.....\$1.50
24-inch wide.....1.75

NESCO Perfect Oil Cook Stove



The Nesco Perfect Cook Stove is a combination of improvements, vital to service, durability and economy.

The glass oil tank is hand blown from pure white flint glass, the automatic valve prevents the oil from spilling, the tank support is very strong and rigid. The feed line is made from heavy wrought iron pipe and is welded to the tank base, thus preventing leaking.

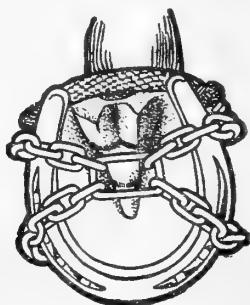
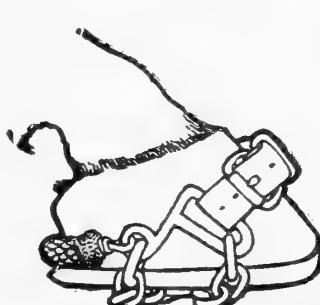
The Rockweave Wick is a woven non-burnable wick, a patented reinforced metal band causes it to preserve its shape. The Rockweave wick is not made from asbestos paper, which will break and is not a cotton wick, which will be consumed by the flame.

Perfectly designed and handsomely finished.

No. 202—2-Burner	\$17.00
No. 203—3-Burner	22.50
No. 204—4-Burner	29.00
High Shelf for No. 203.....	6.50
High Shelf for No. 204.....	8.00

Kinnell Emergency Chain Overshoe for Horses

NO EXCUSE FOR HORSES SLIPPING



Put the Kinnell Emergency Shoe on Your Horses. Prevents suffering and loss. Just the thing to prevent Horses from breaking legs, causing innumerable falls, delay, suffering and financial loss on account of icy, snowy weather.

Special Chain Shoes for Mules; small, medium and large. The average 1400-lb. horse requires a No. 5. The average 1600-lb. horse requires a No. 6.

Price, per Set of Four.....\$5.00

GARDEN HOES



No. GO-67—Solid Steel Garden Socket Hoe, XX Handle; each.....	\$1.00
No. G 67—Solid Steel Garden Shank Hoe, XX Handle; each.....	\$0.90
No. R O A—Riveted Socket Garden Hoe; each	\$0.65
No. L Y 5—Solid Steel Lady's Shank Hoe, XX Handle; each.....	\$0.70
No. 2 P—Two-Point Solid Steel Weed Hoe; each	\$0.45
No. 1 P—Sharp-Point Steel Blade Weed Hoe; each.....	\$0.40

PLANTER HOES

No. P 75—Heavy-Handled Planter Shank Hoe, 7-in. blade.....	\$0.90
No. P 7½, 5½—Heavy-Handled Planter Shank Hoe, 7½-inch blade .....	.95
No. P 85½—Heavy-Handled Planter Shank Hoe, 8-inch blade	1.00

COTTON HOES

No. R C 75—7-inch-Handled Cotton Hoe.....	\$0.90
No. R C 85½—8-inch-Handled Cotton Hoe.....	1.05

MORTAR HOES

No. 9—9-inch Blade, Solid Steel Shank, 5½-foot Handle..	\$1.10
No. 10—10-inch Blade, Solid Steel Shank, 6-foot Handle..	1.20
No. S 9—9-inch Blade, Solid Socket, 5½-foot Handle....	1.25
No. S 10—10-inch Blade, Solid Socket, 6-foot Handle....	1.30

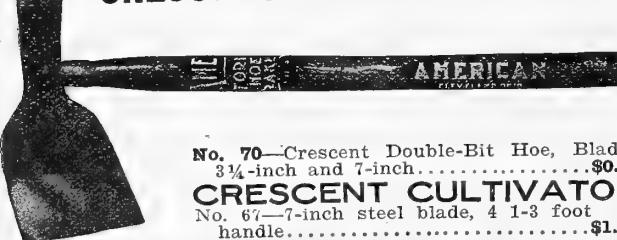
WARREN HOE



Very useful in making rows and weeding onions. Hilling, drilling and weeding, covering seeds, etc.

W 7—Polished Steel Garden.....	\$1.00
W 7½—Polished Steel Field.....	1.10

CRESCENT DOUBLE-BIT HOE



No. 70—Crescent Double-Bit Hoe, Blades 3¼-inch and 7-inch.....	\$0.85
CRESCEENT CULTIVATOR No. 67—7-inch steel blade, 4 1-3 foot handle.....	\$1.00



SPROUTING HOES No. H S 64½—Heavy-Handled Sprouting Hoe, 4½-in. blade, special temper.....	\$1.00
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STREET HOE

No. 12 S—12-inch blade, steel shank, 6-foot handle	\$1.60
--	--------



NO. X 8—8-inch Steel Blade.....	\$0.75
NO. O S C—7-inch Solid Socket; Handle.....	\$0.80



HOE AND RAKE COMBINED

N-4

No. 4 P—Four-Point, Steel Weed Hoe and Rake	\$1.00
---	--------

DIG-EZY MATTOCK HOES

This Hoe is similar to Crescent Double-Bit Hoe, and is made in three sizes.

No. D E 2—1½-inch and 2-inch blades.....	\$0.70
No. D E 3—1½-inch and 3-inch blades.....	.75
No. D E 3½—1½-inch and 3½-inch blades.....	.80

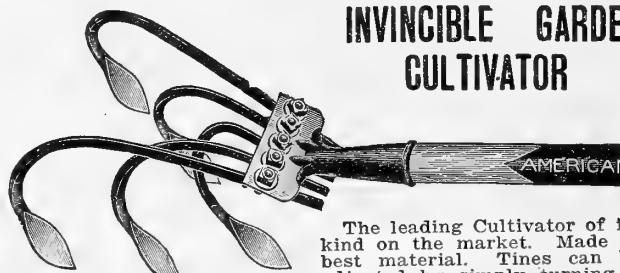
The Victor Garden Cultivator



The Victor Garden Cultivator is popular because it is made of best material. The shanks and blades are of extra good stock, and are easily adjusted.

No. 90—Complete, on 5-foot handle, with 3x5 blades. Each	\$1.50
--	--------

INVINCIBLE GARDEN CULTIVATOR



The leading Cultivator of its kind on the market. Made of best material. Tines can be adjusted by simply turning a nut. Price.....\$1.25



SKUFFLE HOES

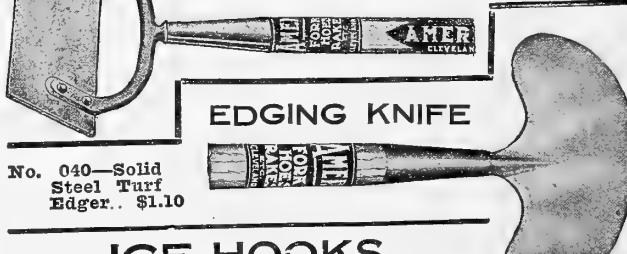
4-in., Eng.....	\$0.70
6-in., Eng.....	.80
8-in., Eng.....	1.00

8-in., Eng.....	1.00
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10-in., Eng.....	1.00
------------------	------

8-inch Steel Blade, with Handle.....	1.00
--------------------------------------	------

EDGING KNIFE



No. 040—Solid Steel Turf Edger..	\$1.10
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ICE HOOKS

No. IH 6—6-ft. Handle, Strapped Ferrule.	\$1.00
No. IH 7—7-ft. Handle Strapped Ferrule.	1.25
No. IH 8—8-ft. Handle, Strapped Ferrule.	1.40



STEEL RAKES

AMERICAN

	Each.
No. 10 C—Curved tooth, 10-tooth....	\$0.85
No. 12 C—Curved tooth, 12-tooth....	.90
No. 14 C—Curved tooth, 14-tooth....	1.00
No. 16 C—Curved tooth, 16-tooth....	1.10
No. 10—Straight tooth, 10-tooth....	.75
No. 12—Straight tooth, 12-tooth....	.80
No. 14—Straight tooth, 14-tooth....	.90
No. 16—Straight tooth, 16-tooth....	1.00
No. 18—Straight tooth, 18-tooth....	1.05

SOLID BOW STEEL GARDEN RAKES

AMERICAN



No. B 12—Prize bow-braced rake, solid steel, 12 teeth. Price, \$1.10 each.

No. B 14—Prize bow-braced rake, solid steel, 14 teeth. Price, \$1.15 each.

No. B 16—Solid bow-braced rake, solid steel, 16 teeth. Price, \$1.25 each.

MALLEABLE RAKES

AMERICAN



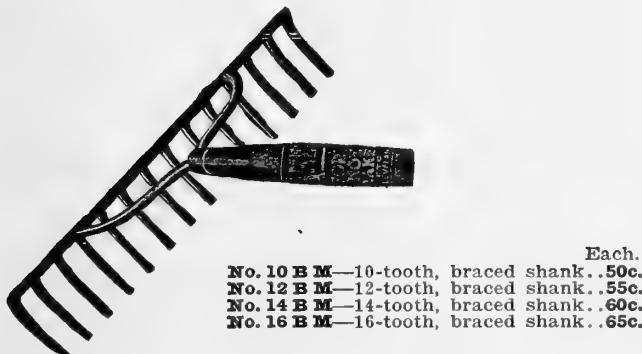
Each.

No. 10 S M—10 tooth, single shank...45c.

No. 12 S M—12-tooth, single shank...50c.

No. 14 S M—14-tooth, single shank...55c.

No. 16 S M—16-tooth, single shank...60c.



Each.

No. 10 B M—10-tooth, braced shank..50c.

No. 12 B M—12-tooth, braced shank..55c.

No. 14 B M—14-tooth, braced shank..60c.

No. 16 B M—16-tooth, braced shank..65c.

EXTRA HEAVY STEEL ROAD RAKES

No. X 14—14-tooth.....	\$1.50
No. X 16—16-tooth.....	1.60

STEEL ASPHALT RAKES

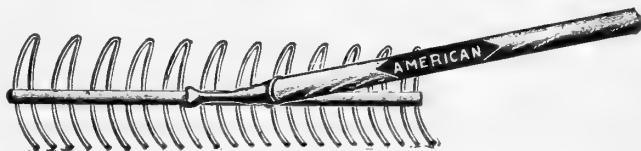
No. 1014—14-tooth, strap ferrule.....	\$2.30
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GRITCO WOOD RAKES

No. 37 X.—24-tooth, 3 Steel Tube Bows.....	\$0.75
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WIRE LAWN RAKES No. 124



As can be seen by the shape of the teeth, these rakes run smooth and will not dig in the sod. By reversing the double teeth are used for leaves and rubbish. 21-inch head. 24 Teeth, with Handle, 75c. each.

Reversible, Heavily Tinned.

HARVEST RAKES



No. 211.—The malleable brace is fastened to the rake head with two rivets and two extension lugs that grip around the rake head. It has 10 teeth.

With Handle.....50c. each

WIRE BOW RAKES

10-Tooth—Wood Rake, with two wire bows.....	60c.
20-Tooth—Wood Lawn Rake.....	70c.



TRUE TEMPER GARDEN OUTFIT

No. T T G O.—7-piece set, consisting of one each extra quality tools, Laid Edge Hoe, Bow Rake, Spading Fork, Weeder, Garden Trowel, Turf Edger and two Stakes with 45-ft. lines. Price, \$4.50.

GARDEN SETS

No. 3 P F.—3-piece, 5-T Rake, Shovel and Hoe. \$1.75 set.

HAY FORKS



Each.

No. 26—Two-tine hay, common ferrule, 6-foot straight handle.....	\$1.25
No. 026—Two-tine, strap ferrule, 6-foot straight handle.....	1.45
No. 027—Two-tine, strap ferrule, 7-foot straight handle.....	1.65
No. 028—Two-tine, strap ferrule, 8-foot straight handle.....	2.00
No. 36—Three-tine, 6-foot handle, common ferrule.....	1.30
No. 036—Three-tine, 6-foot handle, strap ferrule.....	1.50
No. 037—Three-tine, 7-foot handle, strap ferrule.....	1.65
No. 038—Three-tine, 8-foot handle, strap ferrule.....	1.80

LONG HANDLE MANURE FORKS



Each.

No. 044½ Z—Four-tine, 4½-foot handle, strap ferrule.....	\$1.20
No. 054½ X—Five-tine, ferrule, long handle.....	1.50
No. 064½ X—Six-tine, ferrule, long handle.....	1.75

BACHELOR FORK.

No. 044—Four-tine, 4-foot handle, strap ferrule.....	\$1.25
No. 44—Batchelor Fork, four-tine, 4-foot handle, plain ferrule.....	1.40

D-HANDLE MANURE FORKS.

No. 04 DZ—D Handle, four-tine.....	\$1.25
No. 4 W—D Handle, four-tine, plain ferrule.....	1.65
No. 05 D—D Handle, five-tine, cap ferrule.....	1.75
No. 06 D—D Handle, six tine, cap ferrule.....	2.00
No. 151—Four tine, diamond tine, heavy, malleable D handle.....	2.10
No. 153—Four 16-inch extra heavy tines. 27-inch iron D handle.....	2.85
No. 157—Five 16-inch extra heavy tines. 27-inch iron D handle.....	3.05

SPADING FORKS

No. O H W—Four tine, angular back. Price.....	\$1.80
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No. O L D.—Medium weight, angular tine, malleable D handle, strap ferrule. Price	\$1.55
No. J O W.—Jumbo, 4 polished tines, extra heavy strapped ferrule, wood D handle. Price	2.00
No. J O 4.—4 polished tines, extra heavy strapped ferrule, 4-ft. handle. Price....	1.65
No. B 4 D.—Boys' four-tine. Price.....	.95



MANURE FORK HANDLES WITH PLAIN AND STRAP FERRULE.

No. X—4½ ft., with plain ferrule, with cap. List, Doz. \$5.90; Retail, Each, 50c.	No. X—4½ ft....	\$4.40	\$0.40
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No. X—1½ ft., with strap ferrule and cap. List, Doz. \$7.70; Retail, Each, 65c.	No. X—6 ft....	\$6.70	\$0.55
	No. X—8 ft....	10.00	.80
	No. X—10 ft....	14.20	1.20

GENERAL UTILITY FORK



Each.

No. 910.—Ten-tine, scoop shape, malleable D handle, strap ferrule	\$2.75
No. 912.—Twelve-tine, scoop shape, malleable D handle, strap ferrule	3.10

Especially for handling beets, onions, apples, corn, etc. Tine points are flattened and rounded, so as not to injure potatoes, etc.

No. 714.—Coke Forks, fourteen-tine, D handle, strap ferrule	3.75
No. 100 S—Ten-tine, D handle, stone fork.....	2.80
No. 102 S—Twelve-tine, D handle, stone fork.....	3.25

WIRE POTATO SCOOP



CHAMPION SCOUP	\$3.00
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STEEL BARLEY FORKS

Each.

No. B 0185.—Four 18-in. oval tines, strap ferrule, 5-ft. bent handle	\$1.85
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ENSILAGE FORKS

Each.

No. 508—Eight 16-in. tines, strap ferrule, iron D handle	\$2.50
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No. 510—Ten 17-in. tines, strap ferrule, iron D handle	2.90
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STABLE FORKS

Three-prong Oak Wood Stable Forks	\$1.50
Four-prong Oak Wood Stable Forks	1.75

SHOVEL HANDLES.

Poz. Ea.

No. X—L. H., 4½ feet.....	\$5.70	\$0.50
No. X—D. H.....	7.40	.65

GARDEN HOE HANDLES.

List, Ret'l., Doz. Ea.

No. X.....	\$3.40	\$0.30
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No. X—D. H.....	7.40	.65
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EYE HOE HANDLES.

List, Ret'l., Doz. Ea.

No. X—6 ft.....	\$6.70	\$0.55
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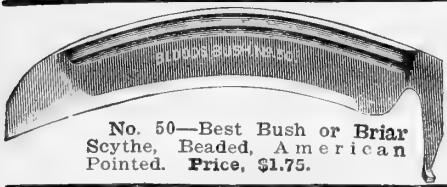
No. X—8 ft.....	14.20	1.20
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RAKE HANDLES.

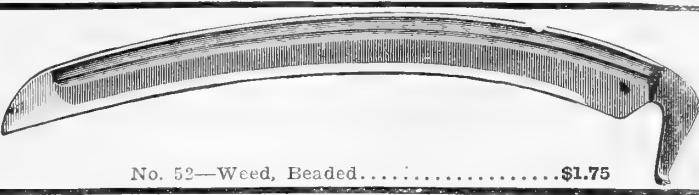
List, Ret'l., Doz. Ea.

No. X—5 ft. chain butt.....	\$5.40	\$0.45
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No. X—5 ft.....	\$3.90	\$0.35
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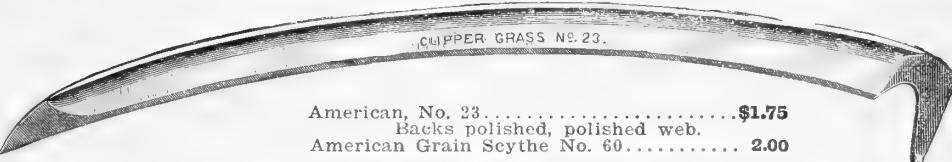
No. 50—Best Bush or Briar Scythe, Beaded, American Pointed. Price, \$1.75.



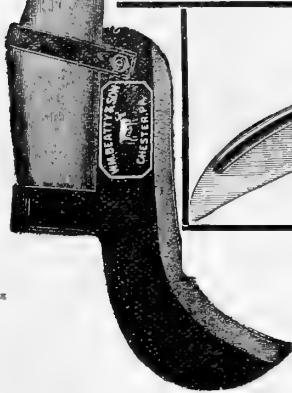
No. 52—Weed, Beaded.....\$1.75

BUSH & BRIER HOOKS

No. 380—Axe Handle Hook	\$2.00
No. 390 — Two-Ring Bush Hook....	\$2.25



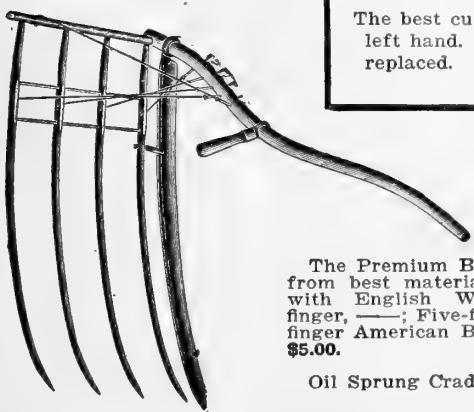
American, No. 23.....\$1.75
Backs polished, polished web. American Grain Scythe No. 60.....2.00



SCYTHE STONES

SIR PIER'S MOSTYN-TALACRE QUARRIES	
Each	
Western Red End.....	15c.
Quinnebog	20c.
English Round	35c.
Darby Creek	25c.

Premium Balance Long Sweep Grain Cradle



The Premium Balance Cradle is made from best material and nicely finished with English Waldron Blade. Four-finger, ____; Five-finger, ____; with Four-finger American Blade, \$4.75; Five-finger, \$5.00.

Oil Sprung Cradle Fingers, 30c. each.

SCYTHE SNATHS



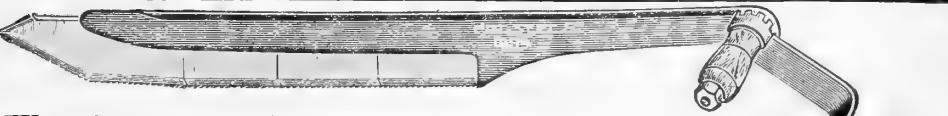
English T. Waldron, 36 in.....\$2.65 Eng. Waldron Grain Scythes, 50 in. \$3.50
English T. Waldron, 38 in..... 2.70 Eng. Waldron Grain Scythes, 52 in. 3.60
English T. Waldron, 40 in..... 2.75

No. 55—Patent Loop, solid plate, iron trimmed. Retail price.....\$1.40
No. 100—Two Rings, Bush Snath. Retail price 1.50
No. 105—Patent Bush Snath. Retail price 1.65

Lightning Pattern Hay Knife



Price.....\$1.60



The American Sickle Edge Hay Knife

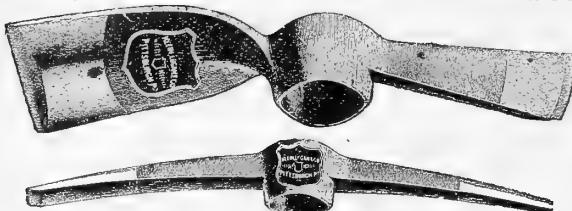
The best cutting knife made. Right or left hand. Section can be easily replaced. Price.....\$1.60



English Grass Hooks

Best English Grass—No. 2.....\$0.70
Best English Grass—No. 3..... .90
Best English Hedge or Grass Hooks, No. 4..... 1.00
Best English Hedge or Grass Hooks, No. 5, riveted back

PICKS, MATTOCKS AND GRUB HOES



No. 1 Gritco—6 to 7, 7 to 8 and 8 to 9 lbs., Best Quality Warranted Steel Railroad Picks..... \$1.75

No. 2—6 to 7, 7 to 8 and 8 to 9 lbs., Regular Iron Railroad Picks..... 1.50

No. 1—Gritco—5-lb. Best Quality War. Steel Mattocks..... \$1.60

No. 1—Gritco—6-lb. Best Quality War. Steel Mattocks..... 1.75

No. 2—5 and 6-lb. Best Refined Iron Mattocks (Steel Cutters)..... Each, 1.50

1 and 2 Gritco—Warranted Steel Grub Hoes..... Each, 1.30

PICK AND MATTOCK HANDLES

No. Excelsior—Good Quality White Hickory Pick Handles..... \$0.50
1—Good Quality White and Red Hickory Pick Handles... 45
2—Mixed White and Red Hickory Pick Handles..... 40

Retail.

POTATO HOOKS



No. 4 B. O. M.—Flat, Oval, 4-Tine Solid Steel \$1.15

No. 4 B. O. H.—Heavy Broad Oval Tines, Bent Head, 5-Foot Handle 1.25

No. 5 B. O. H.—5 Tines, Heavy, Broad Oval Tines, Bent Head, 5-Foot Handle 1.50

MANURE HOOKS

No. M 40—Four Oval Tines, Bent Head, Plain Ferrule, 6-Foot Handle \$1.25

No. M 60—Six Oval Tines, Bent Head, Plain Ferrule, 6-Foot Handle 1.50

AMERICAN

CORN HOOKS

No. 2—Cast Steel, not finished..... \$0.25

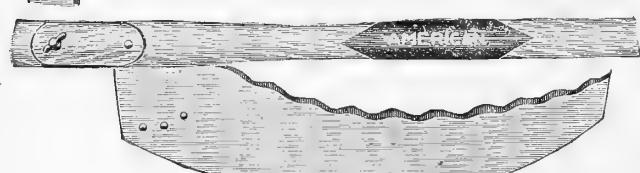
No. 1—Tempered Steel, full polish.... .35

No. 5—Serrated Edge, not adjustable.. .45

No. 6—Serrated Edge, adjustable..... .50

Quynn Corn Chopper..... .65

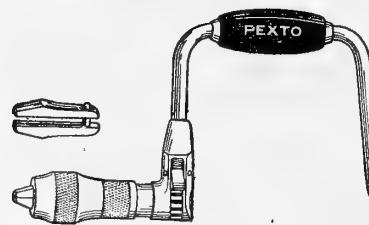
AMERICAN



CORN KNIVES

No. 21—"Will Cut" or Clipper..... \$0.60

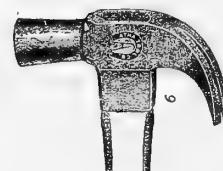
Eureka Curved Blade, Forged Steel, Hardened in Oil..... .85



BRACES

No. 2010—Price, \$1.50.

No. 2410—A Brace suitable for the best work; nicely finished. Price, \$1.75.



ADZ-EYE NAIL HAMMER

No. 1952—1-lb., Not Polished.

Retail Price \$0.75

No. 2052—1-lb. Polished. Retail Price 1.00

FILES

List Price, Dozen. Retail Price, Each.

Mill Saw Bastard.....	10 in.	\$5.60	30c.
Mill Saw Bastard.....	12 in.	7.50	40c.
Mill Saw Bastard.....	14 in.	10.70	55c.
Flat Bastard.....	10 in.	7.00	40c.
Flat Bastard.....	12 in.	9.70	50c.
Flat Bastard.....	14 in.	13.30	70c.
Half Round Bastard.....	10 in.	9.10	50c.
Half Round Bastard.....	12 in.	11.80	60c.
Half Round Bastard.....	14 in.	15.50	75c.
Cross Cut Saw.....	8 in.	7.50	40c.
Cross Cut Saw.....	10 in.	9.10	50c.
Cross Cut Saw.....	22 in.	11.80	60c.

List Price, Dozen. Retail Price, Each.

Taper Saw Files.....	3 in.	\$2.10	11c.
Taper Saw Files.....	3 1/2 in.	2.10	11c.
Taper Saw Files.....	4 in.	2.20	12c.
Taper Saw Files.....	4 1/2 in.	2.40	13c.
Taper Saw Files.....	5 in.	2.60	14c.
Taper Saw Files.....	5 1/2 in.	3.00	18c.
Taper Saw Files.....	6 in.	3.40	20c.
Taper Saw Files.....	7 in.	4.30	25c.
Taper Saw Files.....	8 in.	5.40	30c.
Taper Saw Files.....	9 in.	6.60	35c.
Taper Saw Files.....	10 in.	8.10	45c.



BUSH AND BRIER HOOKS

No. 380—Axe Handle Bush Hook..... \$2.00

No. 390—Two Ring Bush Hook..... 2.25

AXE HANDLES

No. Excelsior—Extra Selected Second Growth, All White Hickory Axe Handles..... \$0.65

No. 1—Selected White Hickory Axe Handles..... .50

No. 2—White and Red Hickory Axe Handles..... .40

No. 3—White and Red Hickory Axe Handles..... .30



AXES

Our Axes are of best quality. We only sell those we know to be first class, and have an established reputation.

Gritco, Single Bit—3 to 4 lbs., 3 1/2 to 4 1/2 lbs., 4 to 5 lbs., 4 1/4 to 5 1/2 lbs. Each, \$2.12.

Gritco Single Bit Axes, Handled... \$2.25

No. 2—First Quality Half Hatchet. 1.50

HOLLOW BACK SCOOPS.


No.		List	Retail
274	Oriole—D Handle, West. Pattern, Size No. 4 ..	\$37.50	\$2.00
276	Oriole—D Handle, West. Pattern, Size No. 6 ..	39.50	2.10
278	Oriole—D Handle, West. Pattern, Size No. 8 ..	41.50	2.20



264	Oriole—D Handle, East. Pattern, Size No. 4 ..	\$34.70	\$1.80
265	Oriole—D Handle, East. Pattern, Size No. 5 ..	35.70	1.90
266	Oriole—D Handle, East. Pattern, Size No. 6 ..	36.20	2.00

PLAIN BACK SHOVELS—Carbon Steel.


	List	Retail	
512	Gritco—D Handle, Square Point, Size No. 2 ..	\$34.70	\$1.80
513	Gritco—D Handle, Square Point, Size No. 3 ..	35.70	1.90
514	Gritco—D Handle, Square Point, Size No. 4 ..	36.70	2.00
712	Balto.—D Handle, Square Point, Size No. 2 ..	30.60	1.60
713	Balto.—D Handle, Square Point, Size No. 3 ..	31.60	1.70
714	Balto.—D Handle, Square Point, Size No. 4 ..	32.60	1.80

HOLLOW BACK SHOVELS—Carbon Steel.


	List	Retail	
212	Oriole—D Handle, Square Point, Size No. 2 ..	\$29.25	\$1.55
213	Oriole—D Handle, Square Point, Size No. 3 ..	30.25	1.60
214	Oriole—D Handle, Square Point, Size No. 4 ..	31.25	1.65
215	Oriole—D Handle, Square Point, Size No. 5 ..	32.25	1.70
216	Oriole—D Handle, Square Point, Size No. 6 ..	33.25	1.75

PLAIN BACK SHOVELS—Carbon Steel.


	List	Retail	
532	Gritco—D Handle, Round Point, Size No. 2 ..	\$34.70	\$1.80
533	Gritco—D Handle, Round Point, Size No. 3 ..	35.70	1.90
732	Balto.—D Handle, Round Point, Size No. 2 ..	30.60	1.60

PLAIN BACK SPADES.


	List	Retail	
552	Gritco—D Handle Spades, Size No. 2 ..	\$34.70	\$1.80
752	Balto.—D Handle Spades, Size No. 2 ..	30.60	1.60

HOLLOW BACK SPADES.


	List	Retail	
252	Oriole—D Handle Spades, Size No. 2 ..	\$29.25	\$1.55

DITCHING SPADE.


	List	Retail	
818	—18-inch Blade	\$48.00	\$2.50

DRAIN SPADE


	List	Retail	
618	—18-inch Blade	\$48.00	\$2.50

PLAIN BACK SHOVELS—Carbon Steel.

No.		List	Retail
542	Gritco—Long Handle, Round Pt., Size No. 2 ..	\$34.70	\$1.80
742	Balto.—Long Handle, Round Pt., Size No. 2 ..	30.60	1.60

HOLLOW BACK SHOVELS—Carbon Steel.

No.		List	Retail
242	Oriole—Long Handle, Round Pt., Size No. 2 ..	\$29.25	\$1.55

PLAIN BACK SHOVELS—Carbon Steel.

No.		List	Retail
722	Balto.—Long Handle, Square Pt., Size No. 2 ..	\$30.60	\$1.60

HOLLOW BACK SHOVELS—Carbon Steel.

No.		List	Retail
222	Oriole—Long Handle, Square Pt., Size No. 2 ..	\$29.25	\$1.55

HOLLOW BACK SCOOPS.

No.		List	Retail
264	Oriole—Long Handle, East. Pat., Size No. 4 ..	\$34.70	\$1.80
265	Oriole—Long Handle, East. Pat., Size No. 5 ..	35.70	1.90
266	Oriole—Long Handle, East. Pat., Size No. 6 ..	36.70	2.00

No.		List	Retail
274	Oriole—Long Handle, West. Pat., Size No. 4 ..	\$37.50	\$2.00
276	Oriole—Long Handle, West. Pat., Size No. 6 ..	39.50	2.10
278	Oriole—Long Handle, West. Pat., Size No. 8 ..	41.50	2.20

PLAIN BACK SPADES.

No.		List	Retail
554	Gritco—Long Handle Spades, Size No. 2 ..	\$34.70	\$1.80
754	Balto.—Long Handle Spades, Size No. 2 ..	30.60	1.60

HOLLOW BACK SPADES.

No.		List	Retail
254	Oriole—Long Handle Spades, Size No. 2 ..	\$29.25	\$1.55

SNOW SHOVELS.

	List	Retail
Long Handle, Steel Socket.....	\$24.00	\$1.10

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

WROUGHT SCREW AGRICULTURAL WRENCHES.



6 in. 8 in. 10 in. 12 in. 15 in.

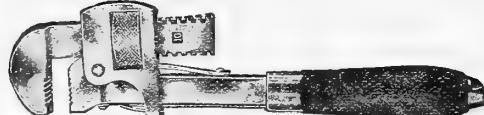
Retail price, each..... \$0.65 \$0.75 \$0.90 \$1.15 \$1.50
List price, per dozen..... 10.00 12.00 14.00 17.00 24.00

MACHINISTS' KNIFE HANDLE WRENCHES.



Retail 6 in. 8 in. 10 in. 12 in. 15 in. 18 in. 21 in.
price, each.... \$1.00 \$1.10 \$1.35 \$1.50 \$2.65 \$3.30 \$4.00
List price, doz. 9.00 10.00 12.00 14.00 24.00 30.00 36.00

STILLSON WRENCHES.



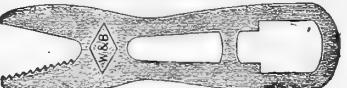
Size.	Grips.	List.	Retail.
6 in.	1/8 wire to 1/2 pipe.	\$2.00	\$1.40
8 in.	1/8 wire to 3/4 pipe.	2.25	1.50
10 in.	1/8 wire to 1 pipe.	2.50	1.75
14 in.	1/4 wire to 1 1/2 pipe.	3.50	2.25
18 in.	1/4 wire to 2 pipe.	5.00	3.00
24 in.	1/4 wire to 2 1/2 pipe.	7.25	5.00
36 in.	1/4 pipe to 3 1/2 pipe.	13.50	9.45
48 in.	1 pipe to 5 pipe.	20.00	14.00

COMBINATION WRENCH.

List, Retail,
Doz. Each.

10—Wire or pipe from 1/4 to 1 in. outside diameter. \$25.25 \$2.00
12—Wire or pipe from 1/2 to 1 1/4 in. outside diameter 28.50 2.25
15—Wire or pipe from 1/2 to 2 1/4 in. outside diameter 40.50 3.35
18—Wire or pipe from 1/2 to 3 in. outside diameter.. 72.00 6.00

"BULLDOG" WRENCHES.



No. 0—Pocket size, 4 in. long. List price, per dozen, \$3.00.
Retail price, 25c. each.
No. 1—5 1/2 in. long. List, per doz., \$4.00. Retail, 35c. each.
No. 1 1/2—5 3/4 in. long. List, per doz., \$5.00. Retail, 45c. each.
No. 2—9 in. long. List, per doz., \$12.00. Retail, 85c. each.

"ALWAYS READY" WRENCHES.
Special Steel, Forged, Tempered in Oil.

No. 1—5 in. long. List price, per doz., \$4.60. Retail price, 45c. ea.
No. 2—7 in. long. List price, per doz., 6.75. Retail price, 75c. ea.

TWIN WRENCHES.



Twin, 10 in. long. List, per doz., \$18.00. Retail, \$1.40 each.

COLD CHISEL.



Retail price, each..... 1/2 in. \$0.25 5/8 in. \$0.30

PUNCH.



Retail price, each..... 1/2 in. \$0.25 5/8 in. \$0.30

GENERAL PURPOSE DROP FORGED STEEL WRENCHES.



For use in erecting or dismantling plows, carriages, wagons, etc., and for general service where a light and long wrench is desired.

Price Semi-Finished, Finished, Price

No.	Manufacturers' Standard Nuts, Size Bolts, Inches.	Price, Unfinished, Each.	Price, Semi-Finished, Each.	Price, Finished, Each.
500	3-16 and 1/4	\$0.23	\$0.34	\$0.47
501	1/4 and 5-16	.29	.42	.59
502	5-16 and 5/8	.30	.54	.73
503	5/8 and 7-16	.47	.69	.90
504	7-16 and 1/2	.62	.88	1.12

Finished, per set..... \$3.81
Semi-Finished, per set..... 2.87
Unfinished, per set..... 1.97

A Set Includes One of Each Above Sizes.

BELT PUNCHES

Revolving.



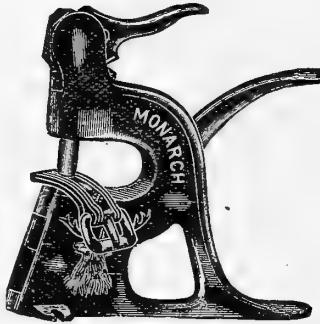
Retail Price, Each, Four-tube, \$1.25. Six-tube, \$1.50. Single-tube, 60c.

Round



Each. Nos. 1 to 6, Retail Price, 10c. Each. Nos. 7 to 9, Retail Price, 15c.

MONARCH RIVETING MACHINE



Upper Lever Adjusts the Machine Instantly; Lower Lever Sets the Rivet.

This is the best low-priced Riveting Machine made. Warranted to set Tubular Rivets perfectly.

Price, \$1.00.



TUBULAR RIVETS

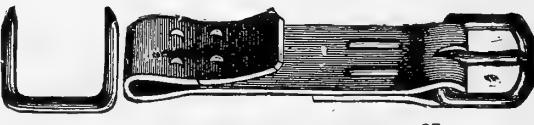
To be used in Riveting Machine.

Rivets, box of

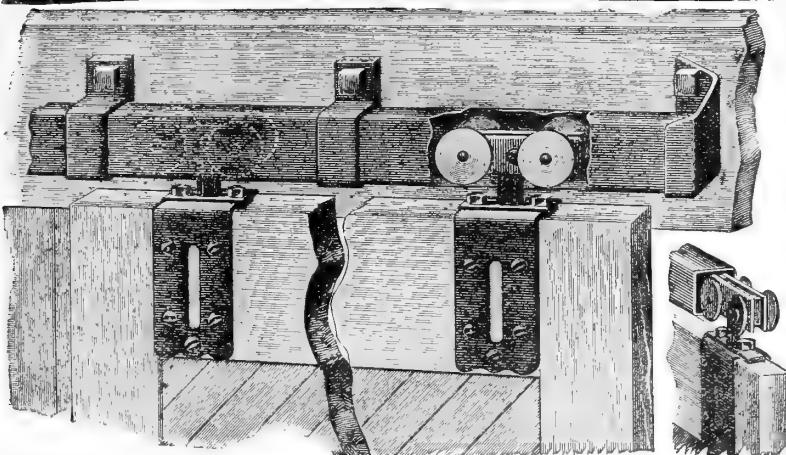
100..... 20c.

Four boxes. 95c.

RAPID HARNESS MENDERS.



Box..... 25c.



TROLLEY ROLLER-BEARING STEEL BARN DOOR HANGER No. 20

The only difference between the No. 25 and 20 is the No. 25 has return apron, as shown in No. 25 cut below, and the No. 20 has not.

Weight, per pair, 10 lbs. Pendant, 6 inches long, 3½ inches wide, 3-16 inch thick. These Hangers have lateral adjustments, and are suitable for doors from 1½ to 2½ inches thick. Hangers and track are sold separately. A pair of Hangers consists of two hangers and carriers, one right-end bracket, No. 51; one left-hand bracket, No. 50, and one center bracket, No. 52, complete with wood screws for hangers and lag screws for brackets. When ordering always give thickness of doors, the exact width of opening, and state whether for double or single doors. No. 31 track, No. 16 gauge price, per foot, 30c. Hangers, No. 20, per pair, \$2.50.

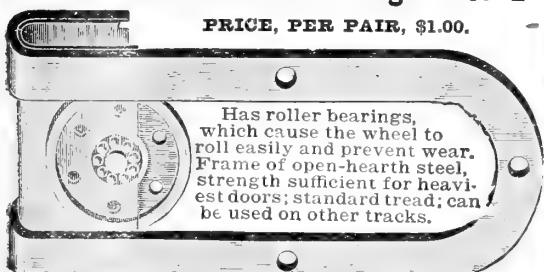
NO. 25 TROLLEY ROLLER-BEARING BARN DOOR HANGER

Has two adjustments—vertical and lateral. Has return apron. (See cut). Pendant 9 inches long, 3½ inches wide, 3-16 inch thick. Suitable for doors 2 to 3 inches thick and weighing from 400 to 600 pounds. Made to run on No. 31 track. A pair of hangers consists of two hangers and carriers, one right- and one left-hand bracket, complete with screws for hangers and lag screws for brackets. Hangers and track sold separately. When ordering, always give thickness of door, exact width of opening, and state whether for single or double door.

Per pair, \$3.00. No. 31 Track, per foot, 30c.

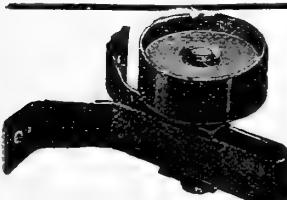
Anti-Friction Barn Door Hanger No. 2

PRICE, PER PAIR, \$1.00.



Has roller bearings, which cause the wheel to roll easily and prevent wear. Frame of open-hearth steel, strength sufficient for heaviest doors; standard tread; can be used on other tracks.

The track is made of special carbon open-hearth steel, 1x3-16 stock; has heavy brackets well and substantially riveted every 12 inches. Ends made with tongue and groove to match. Track made in 4-, 6-, and 10-foot lengths. Price, per foot, 10c.



STAY ROLLERS

For use with Barn Door Hangers. Price, each, 25c.

No. 24



Roller-Bearing Steel Barn and Fire Door Hanger

A pair of hangers consists of two hangers, one each right- and left-hand brackets, and one center bracket, complete, with wood and lag screws. The only Adjustable Double Apron made.

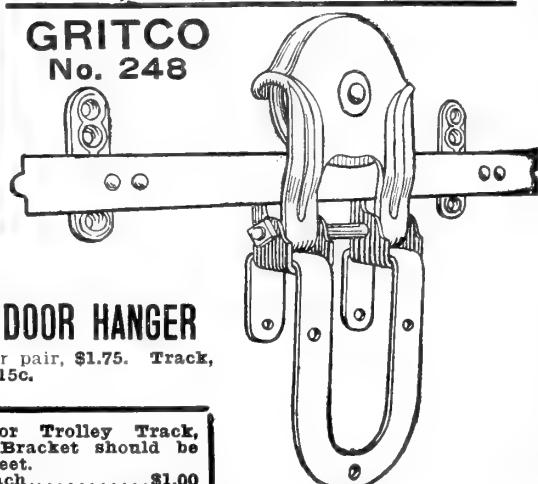
Suitable for doors weighing 400 to 600 lbs. Adjustment lateral only. No. 1—For doors, 1¾ to 2¼ inches thick; weight, 12 lbs. No. 2—For doors 2¼ to 3 inches thick; weight, 12 lbs. This Hanger has return or double apron. Per pair, \$2.75. No. 31 Track, per foot, 30c.

FLEXIBLE HINGE BARN DOOR HANGER

No. 843.

The door can be swing out from the bottom at any angle. The flexible feature allows the top of the door to move away from the building at least one-half an inch. The track is heavy special high-carbon flexible steel, 3-16x1¼ inch, supported by a heavy steel bracket with square shoulder mortised through the track every 17 inches. Wgt., dozen pairs, 70 lbs. Weight, track, per 100 feet, 105 lbs. Retail, per pair, \$1.75. Track, Retail, 15c.

GRITCO No. 248

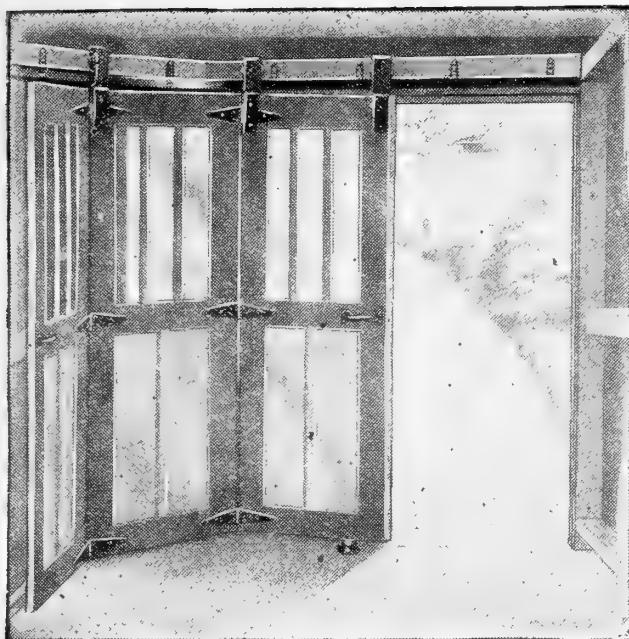


HINGE BARN DOOR HANGER

Hangers, Retail, per pair, \$1.75. Track, per foot, Retail, 15c.

Extra Brackets for Trolley Track, each, 30c. One Bracket should be placed every 5 feet.
Double Brackets, each.....\$1.00

THE LOUDEN GARAGE DOOR HANGER



Louden Garage Door Hanger

the trolleys to be clogged or derailed. The trolley wheels revolve on hardened steel roller bearings around a tempered steel shaft. Always roll easily. A light push will open or close the heaviest door.

The Bird-Proof Track is square, not oval. The level tread reduces friction to the minimum and overcomes the wedging tendency frequently found on oval tracks which support heavy doors. The form of the Bird-Proof Track and the special grade steel used in its manufacture, combine to give it wonderful strength and rigidity. It is further strengthened by the curved lips on the under side of the track. Will not sag under the weight of heavy doors.



Roller Bearing Tandem Trolley for
Bird Proof Track

Operates on roller-bearing trolleys, inside, entirely out of the weather. The door is built in three sections, hugs the corner closely when opening, and lies flat against the inside wall.

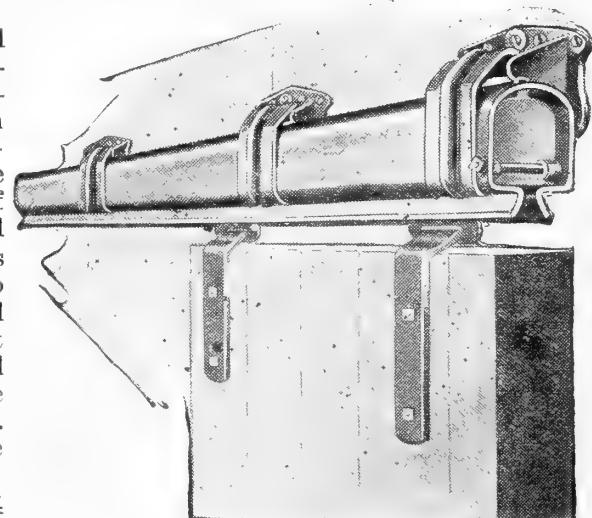
It isn't necessary to open the whole door for walking in and out or to build a special small door for that purpose—one panel of the door swings like an ordinary hinged door.

The outfit complete consists of sufficient track for 6, 8, 10 or 12-foot door, together with the following fittings: 3 special swivel trolley hangers, 6 five-inch strap hinges, 2 door handles, 2 floor stay rollers, 1 wall stay roller, 1 hasp and staple, 6 dozen screws, $\frac{1}{2}$ -pound barbed chisel-point nails. Full directions are furnished with each outfit. Any carpenter can build door and hang properly. Track comes in straight sections which are easily bent to fit building.

Track weighs 1 pound per foot. Fittings weigh 18 pounds. Price, per set, 12-foot door, \$9.75.

THE LOUDEN BIRD-PROOF BARN DOOR HANGER

Cannot be clogged by trash or birds in summer, or by ice and snow in winter. There is no chance for



Louden Bird-Proof Barn Door Hanger

Track is made of 14 gauge special steel, is $1\frac{5}{8}$ inches wide by $2\frac{1}{16}$ inches deep. Supporting brackets for track of steel with embossed reinforcements. Wall brackets of refined malleable iron. Supporting wall brackets may be placed 36 inches apart; for heavy doors, spaced 24 inches apart. End stops and splices for track packed with trolleys. Track is furnished in 4, 6 and 8-foot lengths. Weight of track, per foot, $1\frac{3}{4}$ pounds. Weight of supporting brackets, per dozen pair, 9 pounds. Hangers complete. Price, per set, \$2.50. Track, per foot, $33\frac{3}{4}$ c. Extra supporting brackets, 22c. each.

GRITCO SWIVEL REVERSIBLE STEEL TRACK HAY CARRIER NO. 4



Gritco
Steel
Track
Hay
Carrier

Car is easily and quickly reversed from the floor, contains no lugs or pins to break; heavier than cars ordinarily sold through this section.

Entirely of malleable iron and high grade. Track traveler and rope pulley

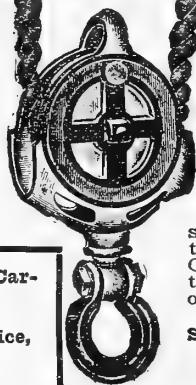
sheaves revolve on turned iron bushing. Car will not pass the trip-block while in operation.

Steel Track Carrier.
Our Special Price,
\$9.85

**Gritco
Wood
Track
Hay
Carrier**

Wood Track Carrier.

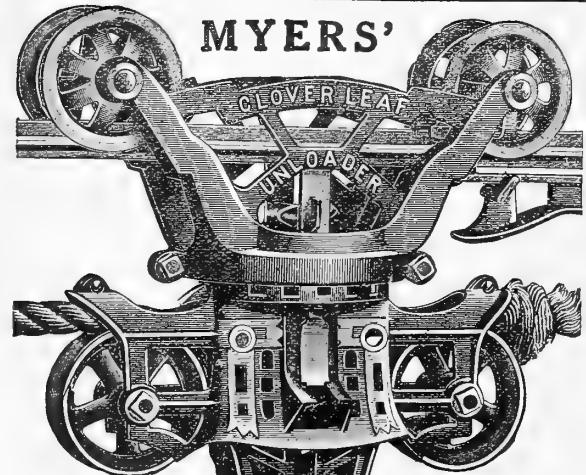
Our Special Price,
\$9.85



STEEL TRACK FOR HAY CARRIERS

Steel Track for Myers' Car. Our Special Price, 30c. ft.

Steel Track for Gritco Car. Our Special Price, 30c. ft.



Our Special Price,
\$9.85

Steel Track, per foot.

Our Special Price,
30c.

**MYERS' WOOD
TRACK CARRIER**

Our Special Price,
\$9.85

HARPOON HAY FORK



No. 1—Double Harpoon Hay Fork, 25-in. tines. Retail, \$2.75.

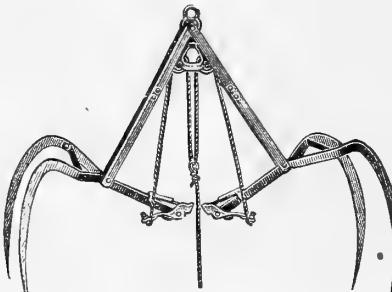
No. 1—Double Harpoon Hay Fork, 31-in. tines. Retail, \$3.40.

No. 1—Double Harpoon Hay Fork, 34-in. tines. Retail, \$4.25.

G. & T. No. 1.

No. 2—Nellis Single Harpoon Fork. Retail, \$5.10 each.

GRAPPLE FORKS.



G. & T. No. 3.

No. 3—4-Tine Aut. Grapple Fork. Retail, \$12.65.

No. 3—6-Tine Aut. Grapple Fork. Retail, \$14.65.

**RAFTER
BRACKETS**

G. & T. No. 4.

No. 4—Rafter Bracket, steel. Retail, each, 8c.

No. 4—Rafter Bracket, malleable. Retail, each, 8c.

FLOOR HOOKS.



G. & T. No. 5.
No. 5—Floor Hook, $\frac{3}{4}$ -inch. Retail Price, 17c. each.

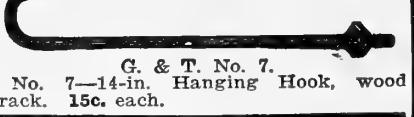
No. 5—Floor Hook, $\frac{5}{8}$ -inch. Retail Price, 15c. each.

MYERS TRACK HANGERS.



G. & T. No. 6.
No. 6—Hanging Hook, steel track. 18c. each.

WOOD TRACK HANGERS

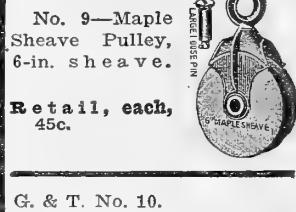


G. & T. No. 7.
No. 7—14-in. Hanging Hook, wood track. 15c. each.

GRITCO TRACK HANGERS.
G. & T. No. 8.
No. 8—Hanging Hook Steel Track. Retail, 18c. each.

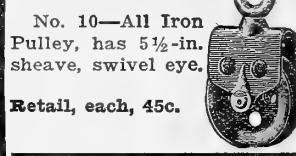
PULLEYS

G. & T. No. 9
**MAPLE SHEAVE
PULLEY.**



No. 9—Maple Sheave Pulley, 6-in. sheave. Retail, each, 45c.

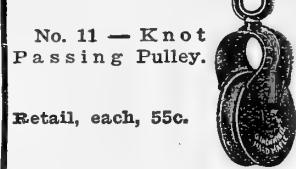
G. & T. No. 10.
ALL IRON PULLEY.



No. 10—All Iron Pulley, has 5½-in. sheave, swivel eye.

Retail, each, 45c.

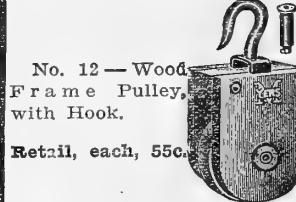
G. & T. No. 11.
KNOT PASSING PULLEY



No. 11—Knot Passing Pulley.

Retail, each, 55c.

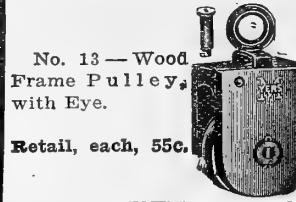
G. & T. No. 12.
**WOOD FRAME PULLEY,
WITH HOOK.**



No. 12—Wood Frame Pulley, with Hook.

Retail, each, 55c.

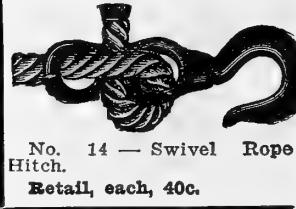
G. & T. No. 13.
**WOOD FRAME PULLEY,
WITH EYE.**



No. 13—Wood Frame Pulley, with Eye.

Retail, each, 55c.

G. & T. No. 14.
SWIVEL ROPE HITCH.



No. 14—Swivel Rope Hitch.

Retail, each, 40c.

SLINGS

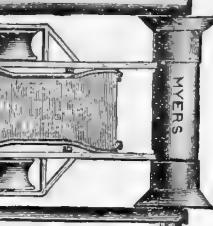
Made adjustable to suit any length of rack, from 17 to 20 feet.

G. & T. No. 15.



Our
Special
Price.
Each.
\$5.40
6.50
8.50

No. 15—Center Trip Sling, 4-foot bars.....
No. 15—Center Trip Sling, 5-foot bars.....
No. 15—Center Trip Sling, 6-foot bars.....

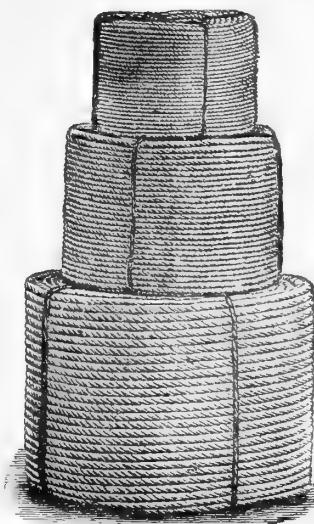


No. 16—Universal Sling Pulley.....
No. 16—Ideal Sling Pulley.....
No. 16—Baltimore Sling Pulley.....

SLING PULLEYS

G. & T. No. 16.

Our
Special
Price.
Each.
\$4.25
4.25
4.25



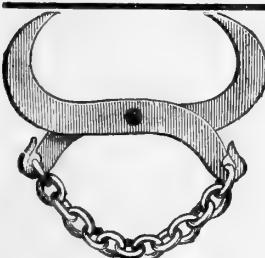
ROPE

Our stock of rope includes all sizes, from 3-16-inch up to 1 inch. These sizes we carry in stock and can furnish same in full coils or by the piece as desired. The quality of our rope is the best, and we will be pleased to name you the best possible price consistent with quality. We are unable to give prices here, as the market changes.

For Hay Forks we recommend $\frac{3}{4}$ -in., 13-16-in. and $\frac{7}{8}$ -in., according to the length of rope.

Approximate length of Manila rope per pound, $\frac{3}{4}$ -in., 6 feet to pound; 13-16-in., 5 feet to pound, and $\frac{7}{8}$ -in., 4 feet 3 inches to the pound.

Write for Prices.



RAFTER GRAPPLE

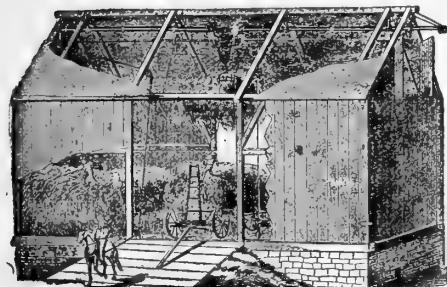
G. & T. No. 17.

No. 17—Rafter Grapple, steel,
\$1.25 each.

Our
Special
Price.

No. 18—Hoisting Single Tree.....	Each, \$2.25
No. 19—Snatch Block	Dozen, 1.35
No. 20—Extra Trips or Stops for Cars.....	Each, .90
No. 21—Coupling for Track.....	Each, .18
Rafter Nails, per pound.....	Each, .18
Steel Track, per foot.....	Each, .30

MATERIAL REQUIRED FOR A STEEL TRACK OUTFIT



For a 40-Foot Barn—One Carrier, 40 feet of steel track, 21 hanging hooks, 21 rafter brackets, 5 knot passing pulleys, 1 D. H. Fork, 6 floor hooks, 110 feet 13-16-inch manila rope, 40 feet $\frac{3}{8}$ -inch reverse rope.

For a 50-Foot Barn—One Carrier, 50 feet of steel track, 25 hanging hooks, 25 rafter brackets, 5 knot passing pulleys, 6 floor hooks, 130 feet 13-16-inch manila rope, 50 feet $\frac{3}{8}$ -inch reverse rope.

For a 60-Foot Barn—One Carrier, 60 feet of steel track, 31 hanging hooks, 31 rafter brackets, 5 knot passing pulleys, 6 floor hooks, 160 feet 13-16-inch manila rope, 60 feet $\frac{3}{8}$ -inch reverse rope.

IRON STRAPPED BLOCKS



Size of
Sheave
Inches.

Diam.
Rope,
Inches.

Length
Shell,
Inches.

	Common Single, Retail Price.	Iron Double, Retail Price.	Bushed, Retail Price.
6.....	\$1.10	\$2.00	\$2.90
7.....	1.30	2.40	3.50
8.....	1.65	2.85	4.25
9.....	1.85	3.40	4.75
10.....	2.75	4.50	6.25
11.....	4.45	7.50	10.65
12.....	4.45	7.50	10.65

	Patent Roller Bushed.	
6.....	\$1.50	\$2.85
7.....	1.70	3.35
8.....	2.25	4.15
9.....	2.50	4.70
10.....	3.50	6.00
11.....	5.30	9.20
12.....	5.30	9.20

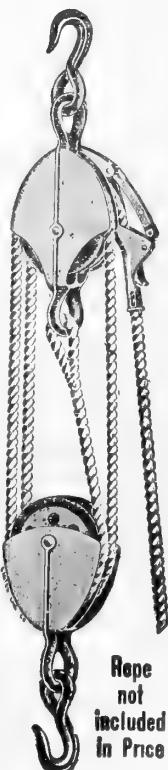
GRTCO HOIST

No. 40.—Two sheaves above, two sheaves below; for $\frac{1}{2}$ inch to $\frac{5}{8}$ inch rope; capacity, 1500 lbs. One man can lift 400 lbs. 3-inch sheaves.

Factory list, \$4.00. Our Special Price, \$3.60.

No. 34.—Two sheaves above, 2 sheaves below; for $\frac{1}{2}$ inch to $\frac{5}{8}$ inch rope; capacity, 3000 pounds. One man can lift 500 lbs. 4-inch sheaves. Factory list, \$6.00. Our Special Price, \$5.30.

No. 28.—Two sheaves above, 2 sheaves below; for $\frac{3}{8}$ inch to $\frac{5}{8}$ inch rope; capacity, 4000 pounds. One man can lift 600 lbs. 5-inch sheaves. Factory list, \$10.00. Our Special Price, \$8.80.



Rope
not
included
in Price

STAR TUBULAR STEEL BARN EQUIPMENT

NO. 1A STAR STEEL STALL (Unit System)

The No. 1A STAR Steel Stall illustrated carries a number of exclusive patented features which should recommend it use to **every** dairy owner who wants the best the market affords at a price well within reason.

By means of the STAR Alignment Device, the cow bed can be actually shortened or lengthened, making the cow stand in proper position with regard to the gutter.

With this new and very efficient device there are no alignment irons necessary and all projections liable to injure the animal have been done away with.

The operation of the STAR Alignment Device is as simple as A-B-C—simply raise the lever and move the Stanchion backward or forward, a total possible adjustment of eleven inches. Whether the cow goes into the same stall each time or not makes absolutely no difference, the litter falls into the gutter keeping both stall and cow scrupulously clean.

This stall is fitted with the STAR Curb Clamp, which does away with the trouble and expense of placing anchors of any sort into the curb. The STAR Curb Clamp not only makes the stalls easily changeable when desired, but also reduces the operation of putting them in.

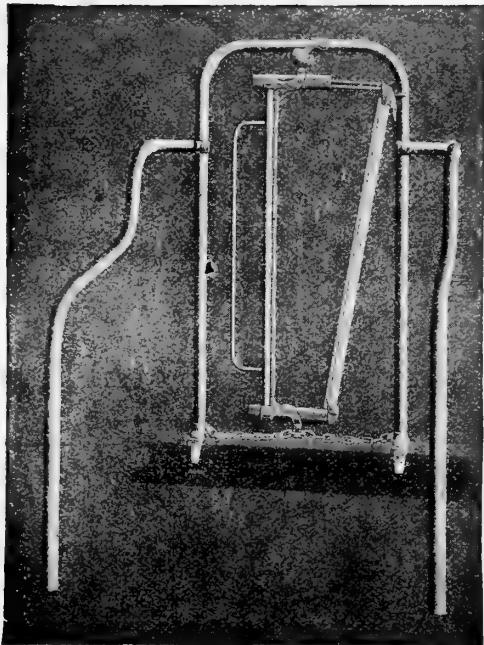
The 434W STAR Stanchion with Automatic Sure Stop is so well known that comment is hardly necessary. It is beyond question one of the best stanchions made—equipped with the one-hand lock, which operates instantly and surely, and fitted with a wood lining which, owing to the method of setting in the U-bar, does away with the possibility of the animal loosening it through use. The Automatic Sure Stop is self-operating and positively prevents the cow putting her head into the wrong opening when entering the stall. Being adjustable, the 434W Stanchion will fit the neck of any size animal.

Complete Mangers or Manger Partitions, Water Bowls, or Name Plates can be added to the NO. 1A STAR Steel Stall at any time desired.

The construction of this stall is typical of all STAR Sanitary Barn Equipment. The stall frame or arch is of first quality steel tubing, one and eleven-sixteenths inches O. D. It has smooth, graceful curves and no corners—no couplings or other dust and dirt catchers. It has twice the strength required in ordinary use.

This stall is assembled before shipment. Its installation is so simple that it can be done by any man who can handle a wrench.

Furnished regularly in 3 ft. 6 in. Weight, 82 lbs. Other widths to order.



NO. 1A STALL

COW BOWLS OR WATER BOXES

With the installation of improved cow stable equipment, these cow bowls, with automatically regulated supply, are being extensively used. A watering device of this kind should be in every stable.

New Oval Bowl, 12x7½ ins., 7 ins. deep, 2 gal., weight 11½ lbs. Our Price, Plain, \$2.75; Our Price, Porcelain, \$3.10.

Large Oval Bowl, 18x9 ins., 8 ins. deep, 3½ gal., weight 23 lbs. Our Price, Plain, \$4.15; Our Price, Porcelain, \$5.10.

Round Bowl, 10½ ins. diameter, 8 ins. deep, 2 gal., weight 11 lbs. Our Price, Plain, \$2.60; Our Price, Porcelain, \$2.75.

Round Bowl, 12¾ ins. diameter, 7½ ins. deep, 3 gal., weight 15½ lbs. Our Price, Plain, \$3.00; Our Price, Porcelain, \$3.25.

2-gal. lids for round bowls. Our Price, \$1.00 each.

3-gal. lids for round bowls. Our Price, \$1.00 each.

2-gal. lids for oval bowls. Our Price, \$1.00 each.

3½ gal. lids for oval bowls. Our Price, \$1.00 each.

State whether holes to be tapped in bottom or side.

Large Regulator (complete), 28 x 10 x 9 inches deep; weight, 34 lbs. Price, \$15.00.

All tapped for 1-in. pipe.

NO. 1A Stall as shown in cut.

NO. 1B Stall same as above, but without the Alignment Device. \$11.50

PRICE:



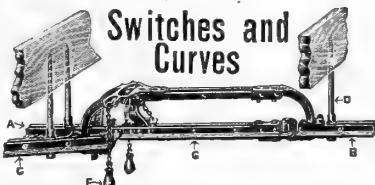
C and Fixtures

The rigid double angle track lends the same ease of operation to all Star Carriers.

Star track is rigid and will not bend or buckle. It will support the heaviest load. Price, per foot, with splices, 27c. Weight, per foot, 2 lbs.

By means of the lag screw hanger Fig. 414 the track may be adjusted to perfect level, even if the joists do not hang evenly. These hangers are made in several lengths.

	Price.
10½-in., per doz., av. wt., 3 lbs.	\$1.95
15¼-in., per doz., av. wt., 4½ lbs.	2.45
17¼-in., per doz., av. wt., 5 lbs.	2.75
19¼-in., per doz., av. wt., 5½ lbs.	3.00
21¼-in., per doz., av. wt., 6 lbs.	3.30



Switches and Curves

Above illustration shows a two-way self-supporting switch. It is perfect in operation, being shifted to right or left by simple pull of the chain.

It locks into position automatically and is fitted with automatic guards which prevent the carrier from running off the open switch.

Two-way Switch, weight 26 lbs., as illustrated. Price, each. \$6.50

Three-way Switch, similar to above, weight, 29 lbs. Price, each. \$7.50

Curves for Star Double Angle Steel Track are made on 4-foot radius, each curve takes the place of eight feet of track. Weight, 12 lbs. Price, each. \$2.60

STAR LITTER CARRIER

FOR RIGID TRACK

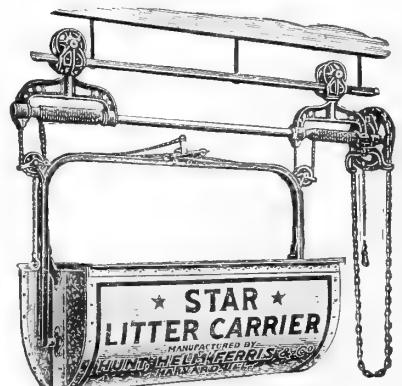


Fig. 333

The carrier pictured above is the fastest and easiest raising and lowering carrier made. The main shaft is supported at four points, all roller bearing, and the large drive wheel fitted with an endless chain is attached directly to it, no gearing or cogs to become worn or loose. Its very simplicity commends it to the man of practical mechanical knowledge, as there is nothing about it to get out of repair.

The large tracker wheels are roller bearing and run on a rigid track. It runs easy.

This, like all Star Carriers, has a rigid bail which holds the tub in shape and insures perfect working of the locks at both ends.

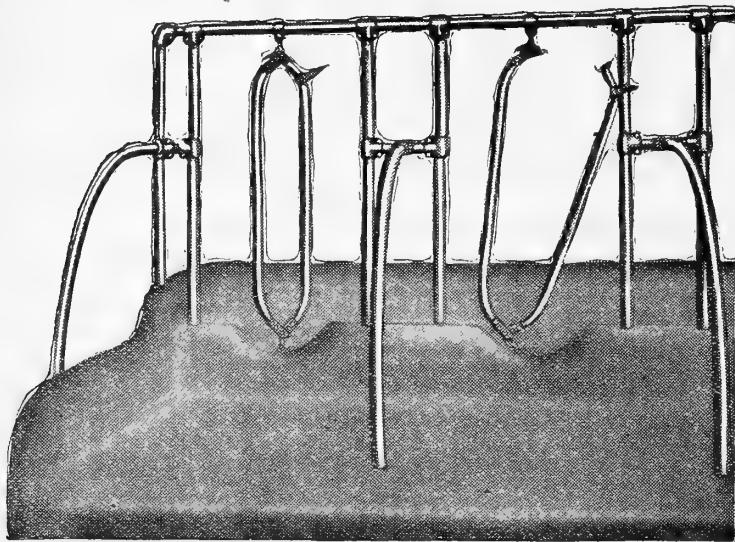
The tub is of heavy galvanized steel, reinforced with angle bars. Price.

With No. 4, 8 bu. Tub, wt., 90 lbs. \$40.25

With No. 6, 10 bu. Tub, wt., 100 lbs. 42.35

With No. 8, 12 bu. Tub, wt., 130 lbs. 44.90

THE LOUDEN DOUBLE POST COW STALL FIG. 812



Louden Double-Post Cow Stall. Fig. 812

Is well built, strong and durable and of neat design. It insures the comfort of the cow, is plain, smooth, and simple in construction. It is easy to clean and keep clean, thus fulfilling all requirements of an up-to-date cow stall.

The stall posts, stall partitions, top-rail and cross braces, are all made of the best quality of 1½ O. D. steel tubing. The standard width of the stall is 3 feet, 6 inches, but this may be varied to suit requirements and the top-rail will be cut to suit. The total height above the stall floor is 5 feet, 3 inches. The standard height of the manger curb at the sides is 11 inches and at the bottom of the cut-out where stanchion is anchored is 6 inches. The stall posts are 5 feet 5 inches long, and with the standard High-Built-Up Curb they go 15 inches into the cement. The stall complete with Tubular Stanchion and 42 inches of top-rail weights 70 pounds.

Price, complete, \$15.90.

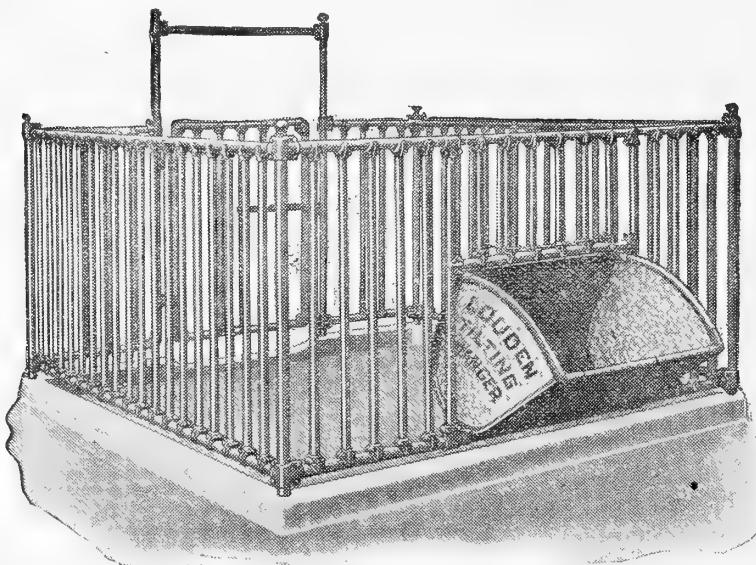
THE LOUDEN TUBULAR STEEL STANCHION

The best stanchion ever built, is the one we recommend and furnish with stalls unless otherwise specified. If preferred we will furnish our sherardized, are finished with our Dairy Barn Paint, or will be galvanized at an additional cost, if ordered.

Price of Stanchion With Guide, \$4.00.

LOUDEN STEEL PENS

Keep the animals clean, healthy and contented, and protect them from injury. Special designs for maternity cows, bulls, calves, hogs, sheep or sick animals. Lighter, airier, stronger, easier to keep clean than wooden stalls. Each pen is furnished with a type of manger or trough suitable for its particular requirements. Pens are all constructed of high-grade tubular steel of the size best suited for the strength required. All connections are of the regular Interlocking, Dust-Proof type, entirely smooth and sanitary. Painted with our Special Dairy Barn Paint, or galvanized if specified. Write for prices on the different pens.



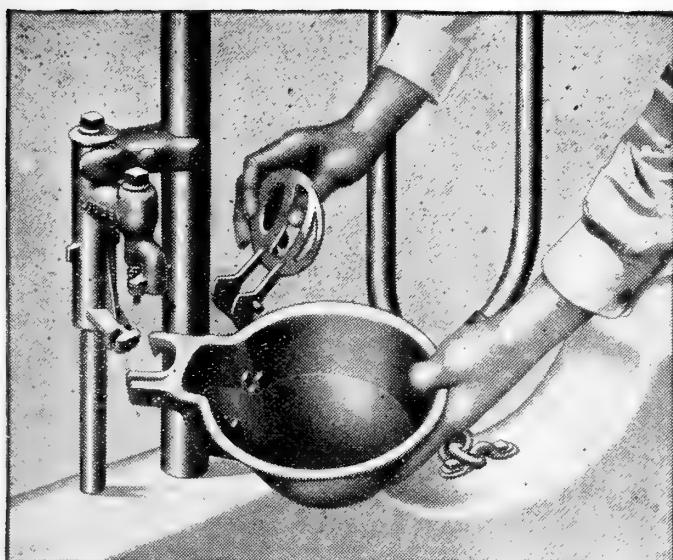
Louden Animal Pen



Louden Steel
Wood Lined
Stanchion

Louden
Tubular Lined
Stanchion

THE LOUDEN DETACHABLE WATER BOWL



Louden Detachable Water Bowl

Is without a doubt the most convenient, neatest in design, most sanitary, simplest in operation and strongest built of any water bowl ever placed on the market. One of the hardest features embodied in this bowl is that of removing it for pouring out the contents. All that is necessary for the operator to do is to raise the nose piece into a vertical position—lift up the bowl and slip it off—absolutely no set screws that are so often rusted, or the releasing of a supporting lever as is required with the ordinary bowl.

Bowl is constructed of heavy gray iron of excellent quality, with brass valve rod, valve seat, and valve spring. Bowl is constructed to fit $\frac{3}{4}$ -inch supply pipe. No inlet pipes furnished. Bowl can be attached to $1\frac{1}{4}$ -inch or 1-inch pipe supports. In addition, it can be attached to wood posts if so desired. No special plumbing fittings are necessary in setting up bowl. Operation is simple and always dependable—cow pushes down release valve with her nose and the water immediately begins to flow. No danger of bowl overflowing. No labor and very little attention is needed upon the part of the attendant.

Weight, $11\frac{1}{2}$ pounds.

Price, \$4.95

THE LOUDEN WINDOW VENTILATOR

Makes possible an abundance of fresh air in the barn without injurious draughts. Fresh air is necessary for the comfort and health of the stock as fresh water and pure food. According to experts the average cow consumes more pounds of air than she does of either food or water. A 1000-pound cow consumes about 224 pounds of air daily.



Louden Window Ventilator

The Louden Window Ventilator is made in different sizes to fit any window where sash does not exceed 42 inches in height. Special ventilators for higher windows can be furnished on special orders at slight additional cost. Fixtures include two shields, two dogs, two braces, 1 catch and 1 keeper, 22 screws and 2 rivets. Shields are galvanized. Price, \$4.00

LOUDEN STEEL TRACK AND FITTINGS

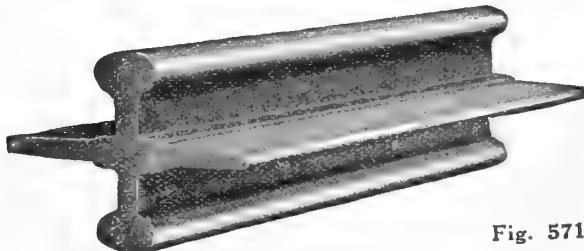


Fig. 571

Louden track is made of the finest and strongest high-carbon steel and is especially adapted to carrying heavy loads. The shape of Louden track eliminates all unnecessary friction, and with it much less power is necessary to operate a carrier than with the ordinary, cheaply constructed track. A thin, flat-sided track will buckle over or become wavy, carrying half the load that Louden track will carry with ease.

Figure 571 is our Double Bead Steel Track. This track weighs 2 pounds to the foot. Width of track 2 inches; height $1\frac{7}{16}$ inches.

Fig. 424—Rafter or Joist Brackets. Dozen.....	\$1.05
Fig. 1066—Track Hangers, 5-inch. Dozen.....	3.00
Fig. 1066—Track Hangers, 7-inch. Dozen.....	3.20
Fig. 1066—Track Hangers, 9-inch. Dozen.....	3.40
Fig. 1066—Track Hangers, 11-inch. Dozen.....	3.60
Fig. 1066—Track Hangers, 13-inch. Dozen.....	3.80
Fig. 1066—Track Hangers, 15-inch. Dozen.....	4.00
Fig. 1066—Track Hangers, 17-inch. Dozen.....	4.20
Fig. 523—End Stop Block. Each.....	.25

PRICE, PER FOOT.....\$3 $\frac{3}{4}$ c.

The Louden Emancipator Litter Carrier

Is the result of years of study and experiment, and the determination to manufacture the best Barn Equipment on earth. It is made for the man who wants the best—who is satisfied with nothing short of perfection. No dangerous clutches, brakes or ratchets in connection with the Louden Carriers. The lifting ratio is forty to one—one pound pull on the hand chain will raise forty pounds in the box.

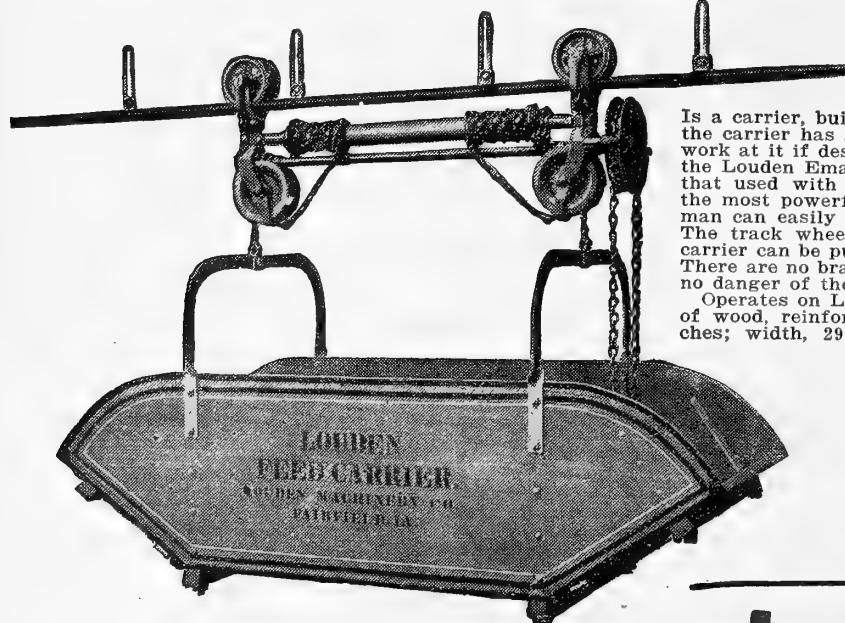
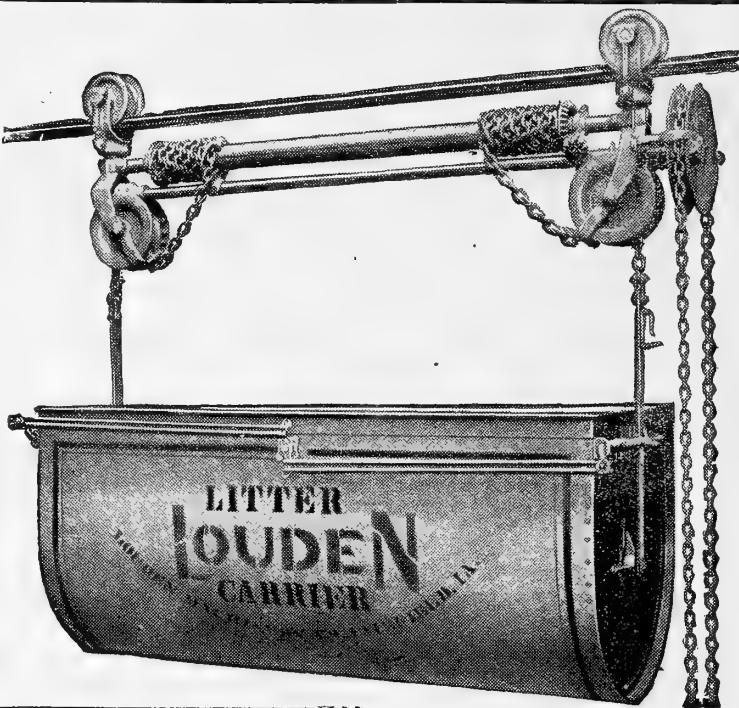
Louden Carriers operate on Louden Double Bead Steel Track. Body of box is made of 20-gauge galvanized sheet steel, reinforced with angle iron. Ends of box are made of 16-gauge galvanized sheet steel. Length of box, 48 inches; width, 27½ inches; depth, 22 inches, outside measurements. Capacity, 10 bushels.

Box is fitted regularly to raise and lower seven feet; may be made to raise and lower as much as twenty feet at slight additional cost. Track wheels are roller bearing. Diameter of track wheels, 4 inches. Clearance necessary for track wheels, 5 inches. Total clearance necessary, box upright, 50 inches; box dumped, 56 inches.

Length of hand chain, 11 feet, ends joined together. Where ceilings are high, longer chains can be furnished at slight additional cost. Shipping weight, 208 pounds.

PRICE.....\$59.70

Fig. 424—Rafter or Joist Brackets.	Dozen	\$1.05
Fig. 1066—Track Hangers, 5 inch.	Dozen	3.00
Fig. 1066—Track Hangers, 7 inch.	Dozen	3.20
Fig. 1066—Track Hangers, 9 inch.	Dozen	3.40
Fig. 1066—Track Hangers, 11 inch.	Dozen	3.60
Fig. 1066—Track Hangers, 13 inch.	Dozen	3.80
Fig. 1066—Track Hangers, 15 inch.	Dozen	4.00
Fig. 1066—Track Hangers, 17 inch.	Dozen	4.20
Fig. 523—End Stop Block.	Each	.25
Louden Double Bead Steel Track, per 100 ft.		33.75



LOUDEN DOUBLE-END FEED CARRIER

The Louden Feed Truck

With side boards and end scoop, is furnished in one size, having a capacity of 20 bushels. Is well built and designed to withstand rough usage. The swiveled small wheels at either end and the large wheels in the center are all roller bearing, which makes the Louden Truck easy to handle, and it is so balanced that it can be turned within its own length.

The body of the truck is removable and four stakes are supplied with each, making it suitable for handling sacked grain, ground feed, etc. Box made of wood, reinforced with strap iron. Length of box, 86 inches; width, 28 inches; depth, 22 inches.

PRICE.....\$47.50

The Louden Double End Feed Carrier

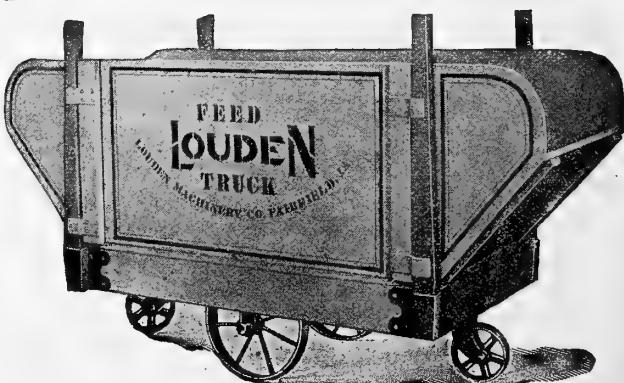
Is a carrier, built extra strong for heavy work. Each end of the carrier has a sloping shovel board, so two men can easily work at it if desired. The carrier is furnished regularly with the Louden Emancipator Worm Gear Hosting device, same as that used with the Louden Emancipator Litter Carrier, and the most powerful lifting device used with any carrier. One man can easily raise and lower six or eight hundred pounds. The track wheels being large and roller bearing, the loaded carrier can be pushed along the track with scarcely any effort. There are no brakes or ratchets to bother with, and absolutely no danger of the carrier dropping down and smashing.

Operates on Louden Double Bead Steel Track. Box is made of wood, reinforced with strap iron. Length of box, 76 inches; width, 29 inches; depth, 20 inches, outside measurements. Capacity, 14 bushels.

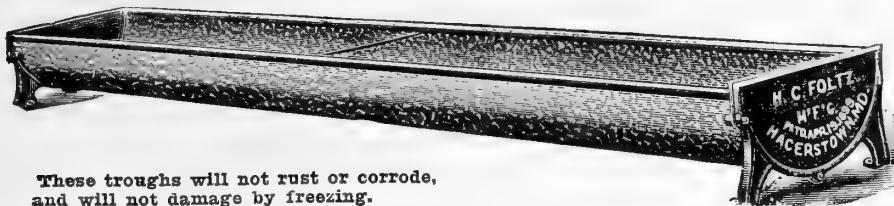
Box is fitted regularly to raise and lower seven feet; may be fitted to raise and lower as much as twenty feet at slight additional cost. Diameter of track wheels, 4 inches. Clearance necessary for track wheels, 5 inches. Total clearance necessary, 56 inches. Length of Hand chain, 11 feet, ends joined together.

Shipping weight, 230 pounds.

PRICE.....\$59.70



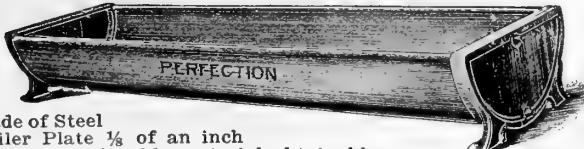
Galvanized Steel Stock Troughs



These troughs will not rust or corrode, and will not damage by freezing.

Length.	Width.	Capacity.	Weight.	Price.
4 ft.	16 in.	24 gals.	75 lbs.	\$9.00
6 ft.	16 in.	36 gals.	95 lbs.	12.00
8 ft.	16 in.	48 gals.	115 lbs.	18.50
10 ft.	16 in.	60 gals.	135 lbs.	23.00
12 ft.	16 in.	72 gals.	155 lbs.	28.00
14 ft.	16 in.	84 gals.	175 lbs.	32.50
4 ft.	20 in.	40 gals.	100 lbs.	12.00
6 ft.	20 in.	60 gals.	125 lbs.	17.00
8 ft.	20 in.	80 gals.	150 lbs.	21.00
10 ft.	20 in.	100 gals.	170 lbs.	27.00
12 ft.	20 in.	120 gals.	195 lbs.	32.00
14 ft.	20 in.	140 gals.	220 lbs.	37.50
6 ft.	24 in.	84 gals.	155 lbs.	20.00
8 ft.	24 in.	112 gals.	185 lbs.	23.25
10 ft.	24 in.	140 gals.	215 lbs.	29.00
12 ft.	24 in.	168 gals.	240 lbs.	35.00
14 ft.	24 in.	196 gals.	270 lbs.	40.60

RIVETLESS STEEL STOCK TROUGH



Made of Steel

Boiler Plate $\frac{1}{8}$ of an inch

thick; most durable material obtainable. Half Round, which gives them strength; also rendering them easy to clean.

Length.	Width.	Depth.	Capacity.	Our Special Price.
No. 2.	4 ft.	18 in.	9 in.	28 gals. \$8.15
No. 2.	5 ft.	18 in.	9 in.	35 gals. 10.75
No. 2.	6 ft.	18 in.	9 in.	42 gals. 12.90
No. 2.	8 ft.	18 in.	9 in.	56 gals. 17.20
No. 2.	10 ft.	18 in.	9 in.	70 gals. 21.45
No. 2.	12 ft.	18 in.	9 in.	84 gals. 25.75
No. 2.	14 ft.	18 in.	9 in.	98 gals. 30.00
No. 3.	4 ft.	20 in.	10 in.	36 gals. 9.50
No. 3.	5 ft.	20 in.	10 in.	45 gals. 11.85
No. 3.	6 ft.	20 in.	10 in.	54 gals. 14.20
No. 3.	8 ft.	20 in.	10 in.	72 gals. 19.00
No. 3.	10 ft.	20 in.	10 in.	90 gals. 23.65
No. 3.	12 ft.	20 in.	10 in.	108 gals. 28.40
No. 3.	14 ft.	20 in.	10 in.	126 gals. 33.10

GALVANIZED HOG TROUGHS

Width, 10 in.; depth, 5 in.; and the lengths, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 12 feet. The capacity is 2 gallons per running foot.

WITH ONE ROLLED EDGE, PER FOOT \$1.20



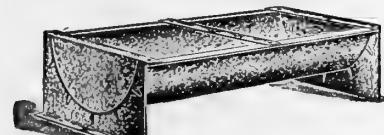
Heavy Cast-Iron Hog Troughs.

No danger of them bursting in winter. Twelve inches wide at the top, 2 inches wide at the bottom and 7 inches deep. Made in lengths from 2 feet up to 12 feet, every 12 inches. Weighs 19 pounds to the foot. Price, \$1.00 per foot.

We also carry in stock a lighter weight trough like the one illustrated above. Price, 90c. per foot.

In addition to the square trough illustrated above, we have the cast-iron round-bottom style, which will not burst from freezing. Price, 90c. per foot.

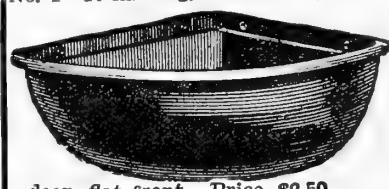
FAVORITE GALVANIZED HOG TROUGHS



No. 804—4 ft. long, 14 lbs.	Our Special Price.	\$3.75
No. 805—5 ft. long, 17 lbs.		4.25
No. 806—6 ft. long, 20 lbs.		4.85
No. 807—8 ft. long, 25 lbs.		5.75

CAST-IRON CORNER MANGERS.

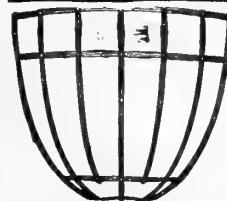
No. 1—16-in. long, 16 in. wide, 9 $\frac{1}{2}$ in.



deep, flat front. Price, \$2.50. No. 2—17 in. long, 17 in. wide, 10 in. deep, roll front. Price, \$2.75. Special Prices in Quantities.

MANGERS

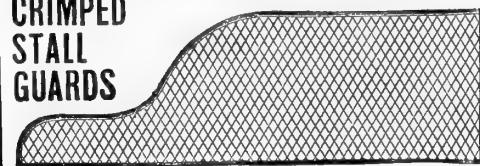
Solid pressed steel sanitary Manger. Can be used anywhere. Made from one piece of heavy steel pressed without seams. No places for dirt to collect. Keeps itself clean. Price, \$2.50.



WROUGHT HAY RACKS.

Far superior to cast-iron Racks, as frequently used. Price, \$2.75.

CRIMPED STALL GUARDS



2 $\frac{1}{2}$ -inch diameter mesh, No. 8 steel wire, with 1-inch channel iron frames. O. G. end, oval-banded top, screw holes, bottom and end. Six feet long, 25 inches high.

Price, each, \$5.00. Square Crimped Wire Stall Guards, used for box stalls. Give size wanted. Per square foot, 80c. Square Crimped Wire Stall Guards over 25 in. wide. Per square foot, \$1.00.

HEAVY SQUARE BOTTOM CAST-IRON WATER TROUGHS.

These troughs are 8 inches wide at the bottom and 14 inches wide at the top and 8 $\frac{1}{2}$ inches deep. We have them in all lengths from 2 feet up. Price, per foot, \$2.50.

SPECIAL SHAPED GALVANIZED HOG TROUGH



The trough is built of 18-gauge galvanized sheet steel, ends are locked seamed, with reinforcing plates on the corners; angle iron dividers across the trough at intervals of 12 inches, riveted to the galvanized sheets.

These angle iron dividers are so strong that a man can stand on them without bending them; they not only give the trough great rigidity and strength so it cannot wrack, but they also separate the hogs, keeping any one hog from monopolizing the entire trough. Hogs cannot tip the trough.

The legs of the trough are of angle steel, fastened to the trough with heavy rivets. Vertical legs on one side in order that the trough may be backed up against a wall.

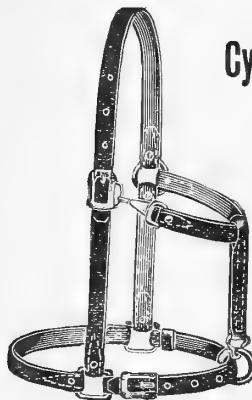
The bottom of the trough is V shaped, and sides have a flare, giving the trough the angles of a half of an octagon, this shape being impossible to any damage by freezing.

4-Foot Length	\$8.00
6-Foot Length	10.00
8-Foot Length	12.50

ALL PRICES IN CATALOG SUBJECT TO CHANGE

WITHOUT NOTICE.

No. 58

Cyclone Leather Horse Halters

One and one-quarter inch. Stitched and riveted, extra strong. List Price, \$4.00 each. Our Special Price, \$2.50 each.

Chrome Leather Horse Halter

These halters are made from a special tanned belting leather, stitched and riveted. 1 1/4 in. List, \$4.00. Our Special Price, \$2.50. 1 1/2 inch. List, \$5.00. Our Special Price, \$3.00.

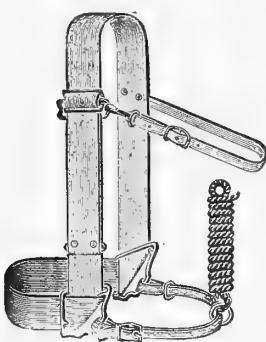
Leather Cow Halter

List Price, \$3.00 each.
Our Special Price, \$2.00 each.

Colt Halter--Russet Leather

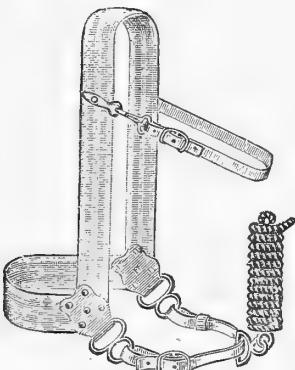
Made especially for Colts; from best leather.

List Price, \$3.50.
Retail Price, \$2.25.

**Adjustable Web Halters, No. 1**

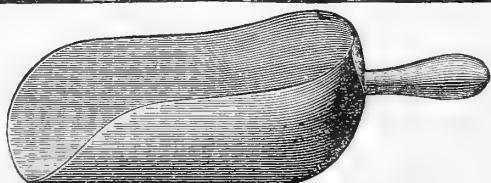
Continuous piece, solid color, No. 1 extra quality web, folded through metal corners, adjustable buckle. Leather chin piece with buckle. Rope lead, leather latch, snap.

Price.....75c.

**No. 2
Web Halters**

Continuous piece No. 1 Web through metal corners. Leather chin piece. Rope Lead, leather latch, with snap.

Price.....60c.

**Cast
Aluminum
Scoops**

MADE OF PURE ALUMINUM, CAST IN ONE PIECE, LIGHT AND CONVENIENT—ABSOLUTELY INDESTRUCTIBLE.

	Our Special Price.
No. 1—Size, 4x11 inches, each.....	\$2.00
No. 2—Size, 5x2 inches, each.....	2.50
No. 3—Size, 5 1/2x14 inches, each.....	3.00
Per set.....	7.50

CRESCENT GALVANIZED STEEL SCOOPS

for Sugar and Salt.

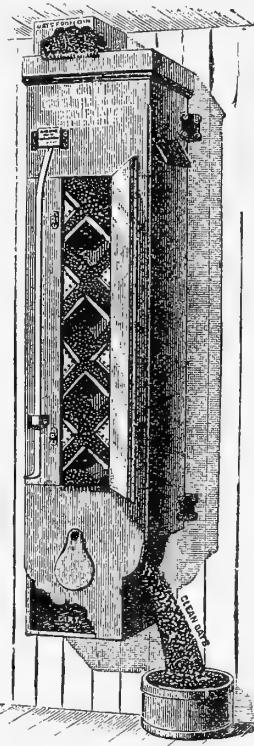
	List Price.	Our Special Price.
Siemens steel, extra galvanized, non-corrosive. Hard maple heads and handles.	Price.	Price.
No. 3—Capacity, 2 1/2 lbs.	.99	\$0.55
No. 4—Capacity, 3 1/2 lbs.	10.80	.60
No. 5—Capacity, 4 1/2 lbs.	12.00	.65
No. 6—Capacity, 5 1/2 lbs.	16.80	.90

ROPE CATTLE TIES

No. 652.—Half-inch Manila rope, 8 feet long, single snap. List Price, \$9.00 dozen. Our Special Price, 50c. each.
No. 655.—Half-inch XX Sisal rope, 8 feet long, single snap. List Price, \$6.25 dozen. Our Special Price, 40c. each.

ROPE HORSE TIES

No. 652.—Half-inch Manila, 10 feet long (2 snaps). List Price, \$11.80 dozen. Our Special Price, 55c. each.
No. 667.—Half-inch XX Sisal, 10 feet long (2 snaps). List Price, \$8.50 dozen. Our Special Price, 50c. each.

HIGBIE SELF-ACTING OATS CLEANER

This cleaner will remove one bushel of dust, dirt, stones, sticks, etc., from every 25 to 30 bushels of cleaned oats; or, in other words, each horse chokes down 7 to 10 bushels of dust, dirt, etc., per year, unless all oats are drawn through a **Higbie Self-Acting Oats Cleaner**.

The dirt box is in the base of the Cleaner, and may be emptied through a hand-hole in the bottom.

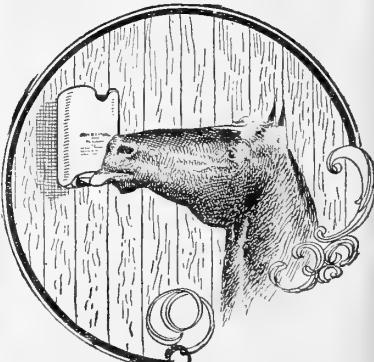
Price.....\$45.00

UTILITY STOCK SALT

Prepared with Hickory Ashes. Answers two purposes at one feeding—salting and administering a valuable tonic.

5-lb. can, 50c.; 40-lb. pail, \$3.60;
100-lb. keg, \$7.50; 150 lbs., 1/2 bbl., \$10.50; 300 lbs., \$18.00.

Rock Salt and Ground Alum Salt. Prices on Application.

ROTO SALT FEEDER

**ROTO FEEDERS 50c
Each . . .**

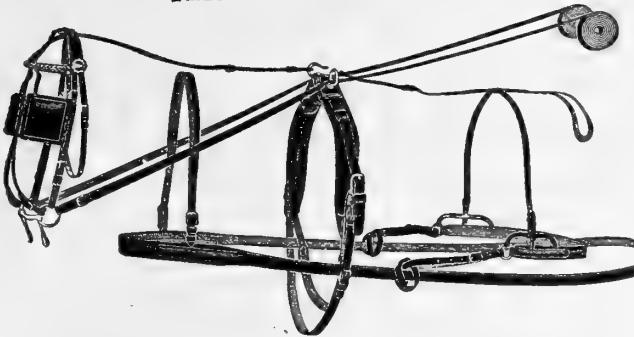
**SALT CAKES 25c
Each . . .**

The universal sale of refined compressed salt for horses and cattle proves that this is the accepted way of feeding salt. It is now only a question of the best shaped salt cake and the best style of feeder.

Is sanitary. Does not foul. Can be cleaned by merely wiping with a damp sponge or cloth. Has no corners to collect dirt, disease or filth. A square corner can never be absolutely cleansed. No waste; observe construction—the salt can only be licked from the bottom of the feeder; superfluous moisture is gone at once; the salt cake is not softened and wasted. Minimum surface of salt exposed to dust or dampness; no crumbling, no waste, no chance for animal to eject salt cake from the feeder. Every advantage and not a fault. We illustrate the feeder; study its points; no argument is needed.

Made of stoneware of a special composition.

PRICES ON APPLICATION.



CARRIAGE & WAGON HARNESS

No. 800—SINGLE BUGGY HARNESS.

Bridles, $\frac{5}{8}$ inch; Traces, 1 inch; Saddle, 2 $\frac{1}{2}$ inches; Folded Breast Collar and Breeching; Flat Lines; X. C. Mounting. Price, with Collar and Hames, —; with Breast Collar, —.

No. 802—SINGLE BUGGY HARNESS.

Bridles, $\frac{5}{8}$ inch; Traces, 1 inch; Saddle, 3 inches, with Japanese Hook and Terrets; Breast Collar and Breeching folded with straight lay; Flat Lines; Japanned Mounting, Imitation Hand Stitched. Price, with Collar and Hames, —; with Breast Collar, —.

No. 700—SINGLE BUGGY HARNESS.

Bridles, $\frac{5}{8}$ inch; Traces, 1 $\frac{1}{2}$ inches; Saddle, 3 inches; Breast Collar and Breeching, single strap; Flat Lines; Japanned Mounting, with Imitation Rubber Hook and Terrets, Imitation Hand Stitched. Price, with Collar and Hames, —; with Breast Collar, —.

No. 706—SINGLE STRAP BUGGY HARNESS.

Bridles, $\frac{5}{8}$ inch; Box Loop, Lay-on Crown, Two-piece Overcheck, Round Brace, Flat Front, Rosettes; Lines, $\frac{7}{8} \times 1$ inch, Black; Steel Billet; Breast Collar, 2 $\frac{1}{2}$ inches, Curved; Traces, 1 $\frac{1}{4}$ inches, Attached; Saddle, 3 inches, Break, Leather Pad and Skirt Metal Hook, Sliding Back Band; Shaft Tugs, 1 inch, Double and Stitched, Billet; Girth, Double and Stitched, Box Loops; Breeching, 1 $\frac{1}{2}$ inches; Solid Waved Turnback, Round Dock, $\frac{3}{8}$ -inch Hip Strap; $\frac{3}{8}$ -inch Holdback Straps, with Pressed Loops; Edges rounded, no creasing; Japanned and Brass Trimmings. Price, with Breast Collar, —; with Kip Collar, Traces to Buckle, —.

No. 710—SINGLE STRAP BUGGY HARNESS.

Bridles, $\frac{5}{8}$ inch; Box Loop, Overchecks, Square Blinds, Round Brace; 1 $\times 1\frac{1}{4}$ -inch Steel Billet Lines; 3-inch Curved or V-shaped Breast Collar; 1 $\frac{1}{4}$ -inch Traces attached; 3 $\frac{1}{2}$ -inch Track Saddle, Patent Leather Skirts, Enamored, Leather Lined, Hand-laced; 1-inch Double and Stitched Shaft Tugs, Box Loop; 1 $\frac{1}{2}$ -inch Griffith Girth, $\frac{3}{4}$ -inch Billets; Breeching, with two $\frac{3}{4}$ -inch Hip Straps; $\frac{3}{8}$ -inch Solid Waved Turnback, $\frac{3}{8}$ -inch Holdback Straps, Round Dock sewed on; Edges rounded; no creasing; Imitation Rubber or Nickel Trimmings. Price, with Kip Collar, Traces to Buckle, —.

No. 600—SINGLE CARRIAGE HARNESS.

Bridles, $\frac{5}{8}$ inch; Traces, 1 $\frac{1}{4}$ inch; Saddle, 3 $\frac{1}{2}$ inches; Breast Collar and Breeching folded with straight lay; Flat Lines; Japanned Trimmed; Imitation Hand Stitched. Price, without Collar, —.

No. 602—SINGLE CARRIAGE HARNESS.

Bridles, $\frac{5}{8}$ inch; Traces, 1 $\frac{1}{4}$ inch; Saddle, 4 inches; Breast Collar and Breeching folded with straight lay; Flat Lines; Nickel Hook and Terrets, balance of mounting X. C.; Imitation Hand Stitched. Price, without Collar, —.

No. 100—DOUBLE BUGGY HARNESS.

Bridles, $\frac{5}{8}$ inch; Traces, 1 inch; Pads with Inserted Housings; Folded Bellybands; Turnback, $\frac{3}{4}$ inch; Hip Strap, $\frac{5}{8}$ inch, with Patent Leather Drops; Flat Lines; without Collars; Japanned Mounting, Price, —.

No. 104—DOUBLE BUGGY HARNESS.

Bridles, $\frac{5}{8}$ inch; Traces, 1 $\frac{1}{2}$ inch; Pads Full Leather Bottom, Hair Stuffed; 1 $\frac{1}{4}$ -inch Side Straps and Folded Bellybands; Turnbacks, $\frac{3}{4}$ inch; Hip Strap; Flat Lines; without Collars; Nickel or Imitation Rubber Mountings; Imitation Hand Stitched. Price, —.

No. 106—DOUBLE BUGGY HARNESS.

Bridles, $\frac{5}{8}$ inch, with Overchecks; Traces, 1 $\frac{1}{2}$ inch; Plain or Fancy Bound Pads, with Leather Housings Inserted; 1 $\frac{1}{4}$ inch Side Straps; Folded Bellybands; Turnbacks, $\frac{3}{4}$ inch, waved; Flat Lines; Nickel or Imitation Rubber Mountings; Imitation Hand Stitched; Nicely Finished. Price, without Collars, —.

No. 403—EXPRESS HARNESS.

Bridles, $\frac{5}{8}$ inch; Traces, 1 $\frac{1}{4}$ inch; Saddle, 4 inches; Red Wood Hames, with Ball Top; Folded Breeching, with straight lay; Double Hip Straps; Brass Mounting; without Collars. Price, —.

No. 400—EXPRESS HARNESS.

Bridles, $\frac{5}{8}$ inch; Traces, 1 $\frac{1}{4}$ inch, with Cock Eyes; Saddle, 4 inches, with Kersey Lining; Wood Hames, with Ball Top; Folded Breeching, with straight lay; Double Hip Straps; Japanned Mounting; Imitation Hand Stitched. Price, without Collars, —.

No. 404—EXPRESS HARNESS.

Bridles, $\frac{5}{8}$ inch; Traces, 1 $\frac{1}{2}$ inch, to buckle to Hames or with Heel Chains and attached to Hames; Saddle, 4 $\frac{1}{2}$ inches, with Kersey Lining; Folded Breeching, with straight lay; Double Hip Straps; Brass Mounting; Imitation Hand Stitched. Price, without Collars, —.

No. 300—DOUBLE WAGON HARNESS.

Bridles, $\frac{5}{8}$ inch; Harness Leather Winkers; Ball Top Hames; 1 $\frac{1}{2}$ -inch Traces, riveted to Hames, with Chain Ends; Folded Pad and Breeching; 1-inch Double Hip Strap; without Collars; Flat Lines. Price, —.

No. 306—DOUBLE WAGON HARNESS.

Bridles, $\frac{5}{8}$ inch; Ball Top Hames; 1 $\frac{1}{4}$ -inch Traces riveted to Hames, with Snap Chain Ends; Folded Pads and Breeching; $\frac{3}{8}$ -inch Double Hip Straps; without Collars; Flat Lines; Imitation Hand Stitched. Price, —.

No. 308—HEAVY DOUBLE WAGON HARNESS.

Bridles, $\frac{5}{8}$ inch; Brass Ball Top Hames; 1 $\frac{1}{4}$ -inch Traces, riveted to Hames, with Chain Ends; Folded Pad and Breeching; 1 $\frac{1}{2}$ -inch Turnback and $\frac{3}{8}$ -in 'i Split Hips; without Collar; Flat Lines; Imitation Hand Stitched. Price, —.

DUMP CART HARNESS

No. A—DUMP CART HARNESS.

Bridle, $\frac{5}{8}$ inch; lines $\frac{5}{8}$ inch; breeching, 3 inches; No. 5 Saddle, leather covered; No. 61 iron-bound hames; $\frac{5}{8}$ -inch hame straps; tug chains; leather collar. Price, with lines, —.

No. 8—DUMP CART HARNESS.

Bridle, No. 318, with winker stays; hames, No. 61, Virginia Hook, with straps; 605X hair collar; saddle, No. 8, doubled and stitched top, full pad, leather girth; breeching, No. 8, 3-inch double body; 1 $\frac{1}{2}$ -inch turnback; 2-inch single hip straps. Price, with lines, —.

Prices on Harness on Application.

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.



VA. CART No. 61.

VA.
Cart

No. 61.

Rock elm or ash wood. $\frac{1}{8}$ -in. stiff-bottom loops. $\frac{3}{4} \times \frac{1}{4}$ -inch steel backs. Three mortise top loops. Heavy wrought steel hooks. Varnished. Polished irons. Size, 19 to 22 inch.

Price, per pair.....\$2.00

NO. 1 HAME.



An excellent light hame and has three top strap loops instead of two, as shown in cut.

Price, per pair.....\$1.10

ROOT AND SAWED HAMES.

ROOT
AND
SAWED
HAMES.

Per Pair

Louden Patent	\$1.50
Louden Tie	1.20
Taylor Root Patent	1.00
Taylor Root Tie .....	.75

Special prices for both whole and retail dealers.

BALTIMORE STRAP HAME.



$\frac{7}{8} \times 7/32$ -inch flat steel selected second growth, air seasoned timber, extra wide woods, superior finish, hand forged, extra heavy steel hook, 17 to 24 in. Per pair.....\$2.00

QUEEN CITY HAME

Patented adjustable malleable draft hook. Rock elm, 19 to 21 inches. Job Lot. Pair, 75c.

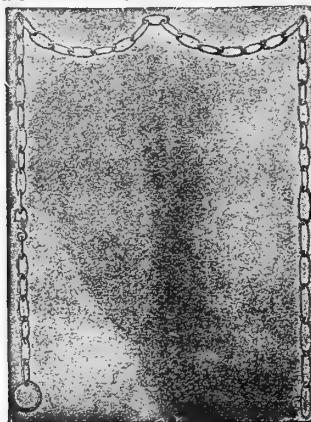
DODSON'S IMPROVED FLAT LINK STEEL HAME CHAINS.



Fits all work Hames. Perfect in construction and operation. Can be fastened in half the time required to fasten to a hame strap.

Snap into off hame loop, hook into right hame loop and pull up same as leather strap. Put finger in ring and pull up tight. 50c.

REGULAR IRON TRACE CHAINS.



6 1/2-10 3.....	\$1.20	pair
7 - 8-2.....	1.25	pair
7 - 10-2.....	1.40	pair
7 - 12-2.....	1.75	pair
7 - 14-2.....	2.00	pair
7 - 16-2.....	2.50	pair

BREAST CHAINS.



Single Slack.



Single Taper Slack.

27-in.—5-16-in. to $\frac{1}{4}$ -in. iron, tapered, pair.....	Retail.	\$1.50
27-in.— $\frac{3}{8}$ -in. to 5-16-in. twist, tapered, pair.....		1.75
27-in.—Double slack, twist, pair.....		1.40
27-in.—12-2, single, slack, pair.....		1.00

BUTT CHAINS.



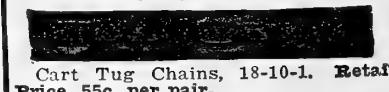
3 1/2 ft.—12-2, Per Pair.....	Retail.	\$1.25
3 1/2 ft.—14-2, Per Pair.....		1.40
3 1/2 ft.—16-2, Per Pair.....		1.55

SPREADER CHAINS.



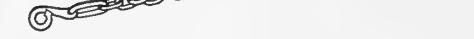
Straight Link Slack Spreader Chain, $11/32$. Retail Price, \$3.50.
 $13/32$. Retail Price, \$4.50.
 $\frac{3}{8}$ Close Link Straight Spreader Chain, for two horses, with three hooks each. Retail Price, \$6.00.

TUG CHAINS.



Cart Tug Chains, 18-10-1. Retail Price, 55c. per pair.

FIFTH CHAINS WITH SPREADER.



No. 67—**FIFTH CHAIN**—Round hook, ring and swivel; black; made with spreader $8\frac{1}{2}$ ft. long to spreader $13/32$. Retail Price, \$9.00.

COW CHAINS

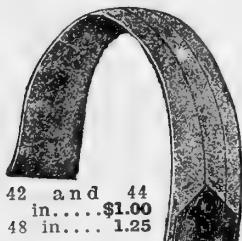
TRIUMPH CHAINS.—Very light; possess great strength; all links have equal strength. Do not kink; no welds to give way; no sharp edges.

No. 3-0—Bulldog Cow Tie (Ohio pat.), each, 40c.	4-0.....\$0.50
No. 3-0—4½-ft. Halter, each, 50c.	6-ft..... .55
No. 0—20-ft. Bulldog Tethering Chain, each.....	1.00
No. 00—20-ft. Bulldog Tethering Chain, each.....	1.25
No. 000—20-ft. Bulldog Tethering Chain, each.....	1.40
No. 0—30-ft. Bulldog Tethering Chain, each.....	1.40
No. 00—30-ft. Bulldog Tethering Chain, each.....	1.50
No. 000—30-ft. Bulldog Tethering Chain, each.....	1.75

OPEN SIDE LAP LINKS.

Open Side Lap Links, polished, ½x3, each.....	\$0.25
Open Side Rings, ½x2½, 15c.	½x3, 25c. ¾x3..... .35

FOLDED DUCK BACK BANDS.



42 in.....\$1.00
48 in.... 1.25

Boss Back Band Hooks.
Per pair, 3½ in....\$0.25
Per pair, 4 in.... .30

WEB BACK BANDS.

No. 1—3½-in., 42-in. long....\$0.35
No. 1—4—in., 42-in. long.... .40
No. 2—3½-in., 42-in. long.... .30
No. 2—4—in., 42-in. long.... .35

BACK BAND HOOKS.

3½-in. ....\$0.25
4—in. .... .30

HAME STRINGS. Black,
5/8x12-inch slit, each.....\$0.25

3/4x12-inch slit, each..... .30

Rawhide.

5/8x42-inch slit, each.....\$0.25

SWEAT PADS

FELTLESS

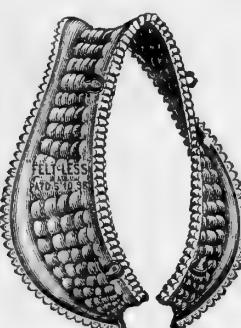
Pinked, Felt Edges, Composite Filling, Four Hooks.

Old Gold Drill; best on the market. 80c.

Cheaper Old Gold, 70c.

BROWN AND WHITE DRILL PADS.

10-inch....60c. 12-inch....65c.



HORSE COLLARS



No. 490—DRAFT.—Split Leather Rim and Back; Blacked Tick Face; Buckle Top, —.

No. 408—DRAFT.—Black Split Leather Rim and Back; Sheep Face; Patent Fasteners, —.

No. 340—TEAM.—Black Split Leather Rim and Back; Tick Face, extra lined, pop stitched; Patent Fasteners, —.

No. 611—TEAM.—With Leather Thong; Black Split, Russet Sheep Face; Patent Fasteners, —.

No. 605X—SCOTCH.—Kip Rim and Back; hair-lined Tick Face, with Thong; Patent Fasteners, —.

No. 5X—CANAL.—All Kip, Russet Face, hand-sewed, with heavy Thongs; Patent Fasteners, —.

No. 165—BUGGY.—All Kip, Blacked, 2 Buckles, —.

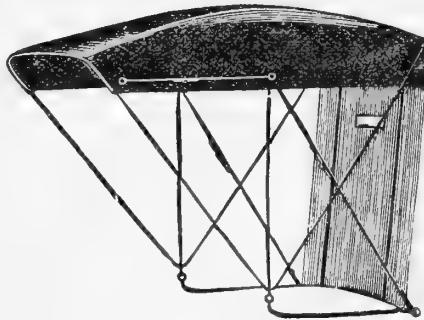
Prices on Application.

CHAIN REPAIR LINKS



Chain Repair Links, ¼ or 10-2, dozen, \$0.25
9-32, or 10-1, dozen..... .30

BUGGY TOPS



Drill Top, lined with nice union cloth. Tubular sockets and second-growth bows, wrought rail and joints, stitched front valance, does not show nails or tacks. Will keep in shape. **Side Curtains are included**, making top complete.

List, \$34.00; Retail, \$20.00.

Rubber Top, cloth lined, tubular sockets and second-growth bows, wrought rail and joints, stitched front valance, no nails or tacks exposed. Will keep shape for years. Complete with side curtains. List, \$40.00; Retail, \$25.00.

BUGGY BACK

In ordering Backs, give exact measurement of seat at top of rim, from out to out; or, if seat is ready ironed up with back board in position, send paper pattern of the exact size and shape of back wanted.

Enamelled Drill—List, \$11.00. Retail, \$6.50.
Heavy Rubber—List, \$14.00. Retail, \$8.00.

CORDED TOP BUGGY CUSHION

NICELY MADE.—In ordering Cushions, give size of bottom of seat inside, size of fall at top and bottom, and depth from top of sill, or enclose paper pattern.

Union Cloth—List, \$11.00. Retail, \$6.50.

Rubber Drill—List, \$14.00. Retail, \$8.00.

Imitation Leather—List, \$16.00. Retail, \$10.00.

WAGON CUSHION

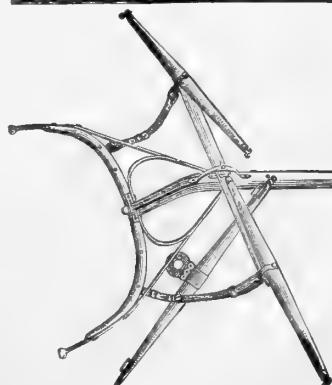
Black Enamaled Drill, 20 to 34 inches long, stitched edge. List, \$4.50. Retail, \$2.75.



SHAFTS

Ironed, complete, painted, for Buggies. List, \$14.00. Our Special Price, \$9.00.

Ironed, complete, painted, for Dayton's and Surreys. List, \$17.00. Our Special Price, \$10.00.

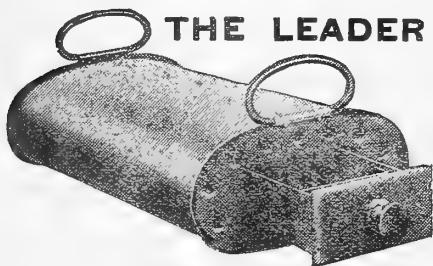


"Baltimore" Ironed Buggy Pole

Is well ironed with wrought-iron tees; heavy drop-forged stay irons. In every way suitable for medium grade work. Prices are for Pole complete, which includes neck yoke, double and single trees and check straps. Ironed, complete, painted. List, \$20.00. Our Special Price, \$12.50. Dayton Pole, List, \$23.00. Our Special Price, \$15.00.

AUTOMOBILE AND CARRIAGE HEATERS

THE LEADER



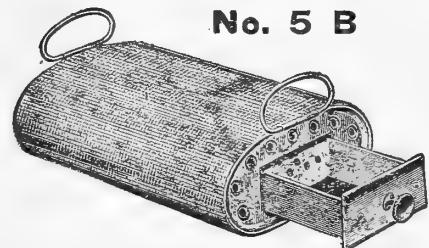
The **Leader** is a splendid new all-metal heater that always gives satisfaction. This new heater is made entirely of metal; is strong and durable; cannot be bent or broken; oval pattern, 12 inches long; weight, 4 lbs.

Price, \$1.25.

No. 5 B

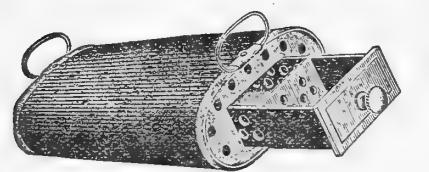
Strong, Ornamental, Convenient.

No. 5 B—Clark Heater, 12 inches long, otherwise same as 3 D, except carpet is not braid-bound. Weight, 4 lbs. Price, \$2.00.

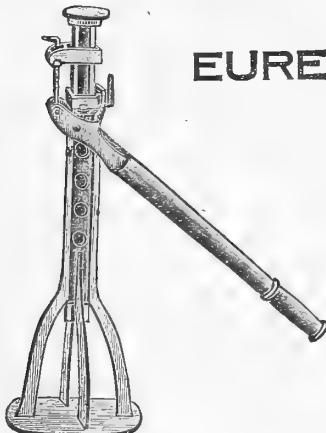


No. 3 D

No. 3 D—Clark Heater, 14 inches long, sheet metal case, stamped white metal ends, covering of braid-bound Brussels carpet. Weight, 7 lbs. Price, \$3.00



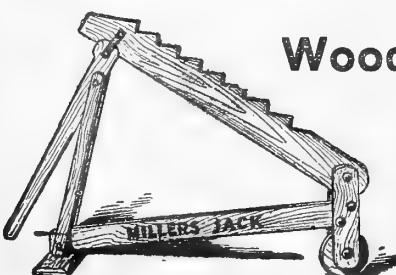
EUREKA WAGON JACK



Made of steel and malleable iron. Light, strong and durable. Adjustable to any height up to 27 inches. Specially adapted to light vehicles of all kinds. Double acting dogs—one raises, the other holds.

Price, \$2.00.

Wood Wagon Jack



No. 1—Adapted for buggies or light work. Capacity, 1000 lbs. \$1.50.

No. 2—for heavy wagons, transfer wagons, trucks, etc. Capacity, 3000 lbs. \$1.75.

No. 3—\$2.25.

No. 7 D



heat or entirely stop combustion and save coal for future use. Weight, 7 lbs. Price, \$4.00

No. 7 D—Clark Heater, 14 inches long, nickel-plated steel ends, heavily reinforced, covered with Brussels carpet, slanting top, adjustable side and end ventilators. Can be regulated so as to increase or diminish the

heat or entirely stop combustion and save coal for future use.

PREPARED COAL



One cake will last 15 to 16 hours. No smoke, odor, flame or gas. Price, case of one dozen cakes, \$1.00

IMPROVED SAMPSON JACK



MALLEABLE IRON.

Best Jack on the market. Can be used for any height axle. Standard cannot drop back on cogs when raised to extreme height. No breaking of cogs and standards.

No. 1—Will raise vehicles weighing 2 tons.....	\$4.50
No. 2—Will raise vehicles weighing 5 tons.....	\$6.50
No. 2—Will raise vehicles weighing 5 tons, with drop hook.....	\$7.00
Can also furnish other Jacks. Prices on application.	



AUTOMOBILE JACK

This Jack is made from best quality refined malleable iron, with high-grade Steel Screw, aluminum finish, and by single turn of the pawl raises or lowers. It is compact, neat and has sufficient strength to raise any automobile made.

Standard Height, Lowered, Inches.	Raises, Inches.	Weight, Pounds.	Price, Each.
Capacity, Pounds. No. 1..... 2000	10	6	\$1.75
No. 2..... 5000	10	6	2.50

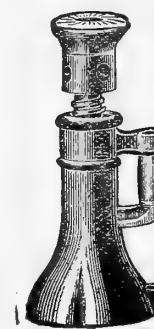
Bell Bottom Jack Screws

These Jack Screws have cast-iron stands, with forged head screws. For workmanship and durability they cannot be excelled. Our

Diam.	Height Stand	Height over all	Special Price
1½ in.	12 in.	15 in.	\$5.25
1½ in.	14 in.	17 in.	6.00
1½ in.	16 in.	19 in.	6.75
2 in.	10 in.	14 in.	6.75
2 in.	12 in.	16 in.	7.50
2 in.	14 in.	18 in.	8.25
2 in.	16 in.	20 in.	9.25

Capacity 1½-in. diameter screw, 10 tons.

Capacity 2-in. diameter screw, 12 tons. Other sizes. Prices on application.



FEDERAL AUTO TIRES AND TUBES

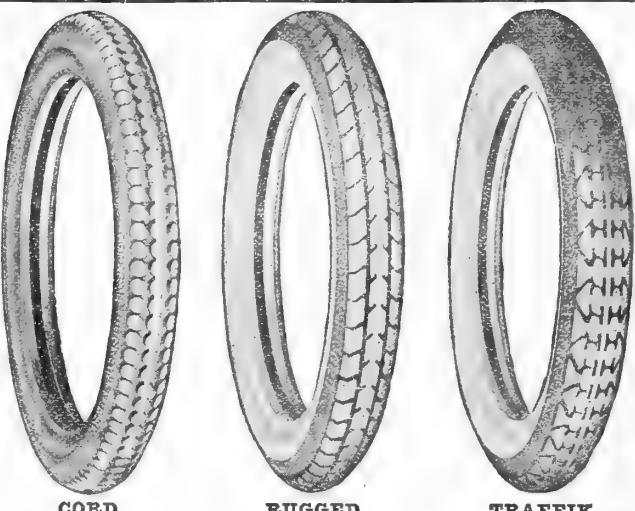
PRICES FEDERAL AUTOMOBILE TIRES

To Fit 1919 Standard Rim Sizes.	CASINGS			TUBES		
	PLAIN Tread.	TRAFFIK Tread.	RUGGED Tread.	CORD Non-Skid.	GRAY.	EXTRA GAUGE Red.
30x3	* \$13.50	* \$14.15	* \$16.30	.....	\$2.75	\$3.30
30x3½	* 17.40	* 18.25	* 22.80	.....	3.40	4.50
32x3½	20.25	21.25	25.50	\$38.40	3.75	5.00
31x4	* 26.70	* 28.05	* 32.75	.....	4.40	5.90
32x4	27.35	28.70	33.50	48.90	4.60	6.15
33x4	28.50	29.95	† 34.95	50.10	4.80	6.40
34x4	29.20	30.65	35.75	51.45	5.00	6.65
36x4 . . . .	.....	.....	† 37.90	.....	5.50	.....
32x4½ . . . .	.....	.....	.....	54.85	5.95	8.35
33x4½	38.10	40.00	46.65	56.50	6.10	8.55
34x4½	39.40	41.35	48.25	58.05	6.25	8.75
35x4½	41.15	43.20	† 50.40	59.40	6.40	8.95
36x4½ . . . .	.....	.....	51.20	60.80	6.55	9.15
33x5 . . . .	.....	.....	.....	68.80	7.15	10.00
35x5 . . . .	.....	.....	55.40	72.05	7.50	10.50
37x5 . . . .	.....	.....	† 61.00	75.35	7.85	11.00
36x6 . . . .	.....	.....	.....	99.45	15.00	.....

Sizes and Styles marked * furnished in Clincher only.

Other sizes and types furnished in S. W. Type.

Sizes and styles marked † furnished in Q. D. until present stocks are exhausted.



FEDERAL CORD TIRES. (Double-Cable-Base)

The construction of Federal Cord tires is unique in tire building practice. They are strong; flexible and resilient and stand out distinctly as typical of the highest achievement in cord tire manufacture. Flexible cords of great tensile strength impregnated with live supple rubber, are laid side by side in diagonal rows to build up the carcass structure. By improved Federal methods the carcass is first formed into shape, and over this highly resilient structure are built the various plies of rubber that form the side-wall, breaker cushion and tread stock. The final vulcanizing of the completed tire is effected in special equipment which permits the use of internal air pressure. This expansion, without cramping the tire in rigid metallic molds, exerts an equal tension on every individual cord so that each lies straight and parallel and bears its share of strain, road shock and load. All Federal Cord tires are built with DOUBLE-CABLE-BASE construction, and in "Oversize" and "Double Oversize" to fit standard detachable rims.

FEDERAL RUGGED TREAD TIRES. Extra Ply Fabric (Double-Cable-Base)

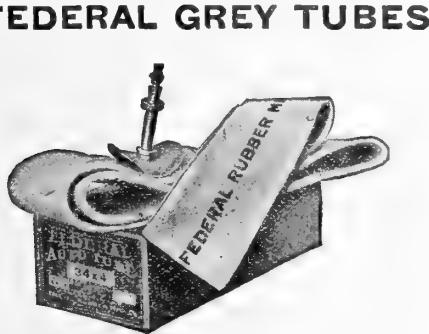
Federal Rugged (extra ply fabric) White Tread Tires are known everywhere as "Extra Service" tires. The rubber used in their manufacture is of exceptional quality and especially treated to give long service. The fabric, made of best grade long staple Sea Island cotton, is special woven to overcome shrinking and to give greatest tensile strength. The system of curing ensures perfect vulcanization of tread and carcass into a unit of construction capable of exceptional stability and durability under the most exacting conditions of service. Federal Rugged Tread tires are made in all standard sizes, for Quick-Detachable Clincher, Straight-Wall Detachable and regular Clincher rims. Federal white tires are also made in Plain treads, all standard sizes, for Quick-Detachable Clincher, Straight-Wall Detachable and regular Clincher rims.

FEDERAL TRAFFIK TREAD TIRES (Double-Cable-Base)

Federal Traffik Black Tread Tires are made of the same excellent quality of material and workmanship as enters into the construction of the well-known Federal Rugged Tread tires. They have been designed after years of experience in the manufacture of automobile tires to meet the demand of the particular motorist for a non-skid tire of the highest efficiency selling at price only slightly greater than the Plain Tread types. The Traffik Tread is at once one of the most pleasing in appearance and most efficient in its protection against skidding that can be found on the market. Federal black tires are also made in plain treads, all standard sizes, for Quick-Detachable Clincher, Straight-Wall Detachable and regular Clincher rims.

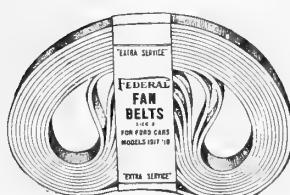
DOUBLE-CABLE-BASE. An Exclusive Federal Feature

An improved type of construction, consisting of a "flexible bead-filler" carrying unstretchable and unbreakable double cables in each bead at the base of the tire. The "flexible bead-filler" permits full and easy flexing where the tire bends to meet the curve of the side rings, and thereby prevents side-wall breaks (commonly known as "rim-cutting"). The strong double cables provide perfect "heel and toe" anchorage of the tire base to the rim, makes it impossible for the bead to break or stretch, or permit the tire to blow over the rim. This perfect circumferential "heel and toe" anchorage also prevents lifting of the tire base under service strains and the possibility of pinching the inner tube, even if a safety flap is not used. Double-Cable-Base construction is found in all Federal tires except the regular clincher type.



FEDERAL GREY TUBES are made of the best quality Para rubber in extra heavy gauge, and embody all of the essential elements of strength, durability and elasticity necessary to long life and satisfactory service.

FAN BELTS



Federal Fan Belts are made up with multiple plies of specially treated fabric, impervious to oils and grease, are practically un-stretchable and are very durable, outlasting the ordinary belts supplied for the purpose. Their comparatively low price and durability make them extremely economical.

No. 1 Belts for 1914-15 Ford Cars.
10 to the package.....each,

No. 2 Belts for 1917-18 Ford Cars.
5 to the package.....each,

No. 3 Belts for 1916-17-18 Hudson Super "6"; 1918 Moon Model 636; 1917-18 National "6"; 1916-17-18 Saxon "6"; 1915 Overland Model 80-81; 1916 Overland Model 83; 1917-18 Overland "4" and "6" Model 85; 1916 Willys-Knight Model 84.
5 to the package.....each,

No. 4 Belts for 1916-17-18 Overland Model 75-90-90 C. C.
5 to the package.....each,

No. 5 Belts for 1918 Auburn with continental Motor; 1916 Buick Models C-24, C-25; 1915-16 Dodge; 1916-17-18 Empire Models 45-50-51; 1916-17-18 Paige "6-38" and "6-39"; 1916-17-18 Studebaker "4" and "6"; 1916-17 Velie "6".
5 to the package.....each,

No. 6 Belts for 1913 Buick Models 30 and 31; 1916-17 Buick Models D-34, D-35, D-44, D-45, D-46, D-47; 1918 Buick Models E-34, E-35, E-44, E-45, E-46, E-47, E-49, E-50.
5 to the package...each,

Price
\$0.50

.50

An all-rubber, self-vulcanizing repair material for inner tubes, and other soft rubber products. Makes a quick, secure and permanent repair.

In Screw Top Cans.....Per Can,
(56 sq. in. Para-Tite)

Price
\$0.45

No. 340 Defender Inside Sleeves
(All Fabric)

Made with white face and gray inside frictions with multiple plies heavy square woven duck. Red rubber tipped. Branded Defender. An attractive medium-priced sleeve of excellence and durability.

.50

No. Size Plies Length Width Incl.

No.	Size	Plies	Length	Width Incl.	Price
3"	3	8"	11 1/4"	\$0.45	
3 1/2"	4	9"	12 1/2"	.60	
4"	4	10"	13 3/4"	.70	
4 1/2"	4	11"	15 1/2"	.90	
5"		11"	17"	.95	

(Packed One to Carton)

.50

TESTING INSTRUMENTS



COLUMBIA VOLTMETER

To determine the condition of batteries, or to test ignition circuits, a small reliable, low-priced meter is necessary.

The Columbia volt-ammeter shown in the cut is very accurate. Put out in a nickel-plated case, black figures on silver dial; it is a handsome instrument and one which should be in the possession of every one using dry cells.

Price.....\$1.25.

VOLT AMMETER

For testing voltage as well as amperage.

Price.....\$1.50.

DIAMOND Z
PETTICOAT TYPE CORE
FORD CARS

PRICE - - - - - 75c

HAMPSHIRE SPECIAL

1/2 inch, 5/8 inch, 18 and
METRIC THREADS

PORCELAIN DATA

The porcelains used in the Hampshire Special Plugs are made up from new material. From the exhaustive tests given them by the Bureau of Standards they are proven to be much superior to the regular porcelain.

We do not make impossible claims for our Plugs, but NOTE GUARANTEE.

All our Plugs are guaranteed perfect in material and workmanship, and if found otherwise they will be replaced free of charge.

5/8-inch Regular \$1.00
5/8-inch extension 1.00
5/8-inch Ford 1.00



Wizard HIGH DUTY Tractor Spark Plug

1/2-inch Standard \$1.25
5/8-inch Regular 1.25
5/8-inch Extension 1.25

MINUTE WHEELS
FOR FORD AUTOMOBILE

A set of Minute Wheels consists of four main hubs to fit on the axle spindles, and all the auxiliary parts for five wheels, and an extra wheel. The proposition is simple. You keep your Ford wheels, taking out only the Ford hubs and using our hubs instead, and we furnish an extra wheel with each set of hubs that is 30x3 1/2 plain clincher rim for Ford cars.

With your car equipped with the "Minute Wheel" you at once eliminate the objectionable feature of having to change or repair a tire on the road.

In one minute you take off the wheel with the bad tire, and replace it with the "Minute Wheel" go on your journey, and when you are at home you repair the tire at your leisure, and when you can do it properly.

With a wrench you take off one nut, replace the wheel, and in less than a minute you are on your way.

Think how much time and trouble this will save you when you are in a hurry, especially if you have a train to catch or an engagement to meet.

If you had a bad tire in the night or on a muddy road, your chagrin would be turned into a "Minute Wheel" smile.

Every Ford user should equip his car with a set.

If interested, write for special circular. Will only fit the Ford automobile.

Regular Price Set, \$32.00; Cash With Order Price, \$30.00.

GRIFFITH & TURNER

SOLID STEEL AXLE, STEEL
SKEIN AND
TUBULAR AXLE

WAGONS

We carry the Solid Steel and Steel Skein Wagons in stock, and can furnish the Tubular Axle Wagons at short notice.



Best Wagons on the Market
for the Money

I-HORSE
WAGON

SPECIAL ONE-HORSE WAGON

Size of St'l Axle	Size of Tabular Axles	Size of Tires	Height Wheels Front Ft. In. Rear Ft. In.	Dimensions of Body Length Ft. In. Width Ft. In. Depth In.			Weight	Capacity	Wagon Complete No Brakes		Wagon Complete With Brakes		Gears Only With Brakes	Gears Only No Brakes
				Front Ft. In.	Width Ft. In.	Depth In.			List	Retail	List	Retail	List	Retail
1 1/4	1 1/8	1 1/4 x 5-16	3 2 3 8	9 0 3 6	9 4	550	1000 to 1200	\$129.60 \$77.75	\$142.80	\$85.75	\$127.20	\$76.50	\$112.80	\$67.75

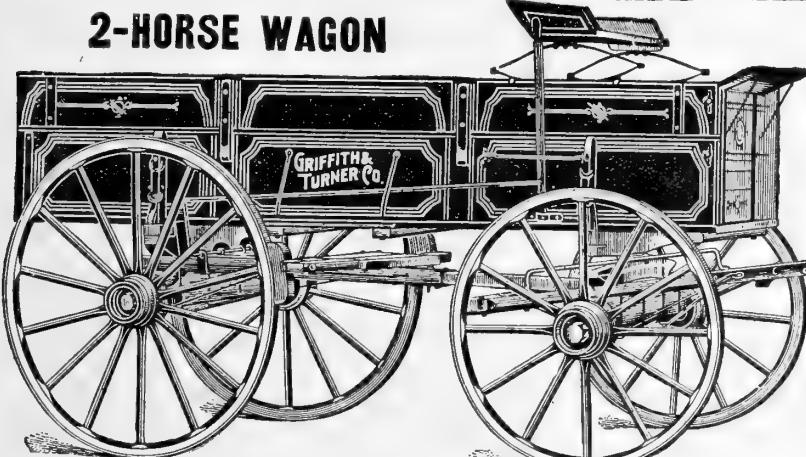
No. 40 ONE-HORSE WAGONS

Size of St'l Axle	Size of Tabular Axles	Size of Tires	Height Wheels Front Ft. In. Rear Ft. In.	Dimensions of Body Length Ft. In. Width Ft. In. Depth In.			Weight	Capacity	Wagon Complete No Brakes		Wagon Complete With Brakes		Gears Only With Brakes	Gears Only No Brakes
				Front Ft. In.	Width Ft. In.	Depth In.			List	Retail	List	Retail	List	Retail
1 1/8	1 1/8	1 1/8 x 5-16	3 2 3 8	9 0 3 6	10 4	650	1500 to 1800	\$144.00 \$86.50	\$158.40	\$95.25	\$139.20	\$83.50	\$124.80	\$75.00

For G. & T. One-Horse and No. 40 Wagons with 2-inch tires, add List, \$10.80; Retail, \$6.40.

For G. & T. One-Horse and No. 40 Wagons with tongue instead of shafts, add List, \$10.80; Retail, \$6.40.

2-HORSE WAGON



THESE WAGONS ARE HEAVILY IRONED AND BRACED. THEY ARE MADE OF THE BEST MATERIAL THROUGHOUT. THE WHEELS ARE DIPPED IN BOILING OIL. HAVE ROUND EDGE TIRES, WHICH PROTECT THE FELLOES AND PAINT. THEY ARE VERY LIGHT RUNNING.

FOR TIRES OF EXTRA WIDTH AND THICKNESS, ADD THE FOLLOWING AMOUNTS TO WAGON PRICES BELOW:

For tires wider than regular on Nos. 42, 44 and 46, add List, \$14.50; Retail, \$8.65 per inch or fractional part thereof. On Nos. 48, 50 and 52, add List, \$19.20; Retail, \$11.50 per inch or fractional part thereof.

For tires thicker than regular, add List, \$12.50; Retail, \$7.25, for every $\frac{1}{8}$ inch additional thickness on 3 inches wide and upwards. Less than 3 inches wide, add List, \$9.60; Retail, \$5.75, for every $\frac{1}{8}$ inch additional thickness. Special Discount for Cash.

PRICES OF STEEL AND TUBULAR AXLE WAGONS

Size of Nos. St'l Axle	Size of Tabular Axles	Size of Tires	Height Wheels Front Ft. In. Rear Ft. In.	Dimensions of Body Length Ft. In. Width Ft. In. Depth In.			Weight	Capacity	Wagon Complete No Brakes		Wagon Complete With Brake		Gears Only With Brakes	Gears Only No Brakes
				Front Ft. In.	Width Ft. In.	Depth In.			List	Retail	List	Retail	List	Retail
42 1 1/2	1 1/8 x 8	1 3/8 x 7-16	3 6 4 0	9 6 3 6	12 6	...	2000 to 2500	\$219.60 \$131.75	\$232.80	139.75	\$208.80	135.25	\$195.60	117.50
44 1 1/2	2 1/2 x 8	2 x 1 1/2	3 6 4 2	10 6 3 6	12 6	900	2500 to 3000	232.80 \$139.75	248.40	149.00	222.00	133.25	208.80	125.25
46 1 3/4	2 1/2 x 9	2 x 1 1/2	3 6 4 2	10 6 3 6	12 8	1000	3000 to 3500	233.20 \$150.00	268.80	161.25	242.40	145.50	226.80	136.25
48 2	2 1/2 x 10	2 x 1 1/2	3 6 4 2	10 6 3 6	14 8	1200	4000 to 4500	274.80 \$164.75	309.40	184.25	261.60	157.00	246.00	147.75
50 2 1/4	2 1/2 x 11	3 x 1 1/2	3 6 4 2	10 6 3 6	14 8	1200	6000	...	309.60	185.75	290.40	174.25	277.60	196.50
52 2 1/2	3 1/2 x 12	3 x 1 1/2	3 6 4 2	10 6 3 6	12 8	1200	4000 to 5000	...	309.60	185.75	290.40	174.25	277.60	196.50

PRICES OF STEEL SKEIN WAGONS

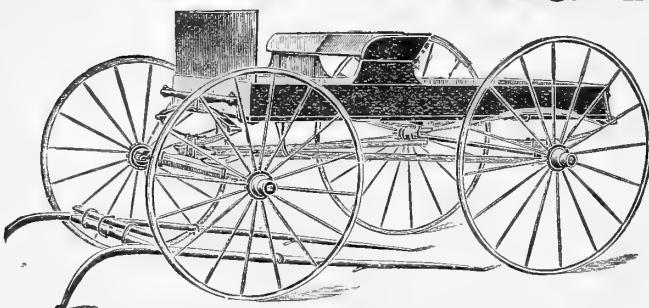
Nos.	Size of Azles	Size of Tires	Height Wheels Front Ft. In. Rear Ft. In.	Dimensions of Body Length Ft. In. Width Ft. In. Depth In.			Weight	Capacity	Wagon Complete No Brakes		Wagon Complete With Brakes		Gears Only With Brakes	Gears Only No Brakes
				Front Ft. In.	Width Ft. In.	Depth In.			List	Retail	List	Retail	List	Retail
3...	2 1/2 x 8 1/2	2 x 3/4	3 2 3 8	9 6 3 6	12 6	800	2000 to 2500	\$233.20 \$150.00	\$268.80	161.25	\$242.40	\$145.50	\$226.80	136.25
4...	3 x 9	2 x 1 1/2	3 6 4 0	10 6 3 6	12 6	1100	2500 to 3000	274.80 \$164.75	309.40	184.25	261.60	157.00	246.00	147.75
5...	3 1/4 x 10	2 x 5/8	3 6 4 0	10 6 3 6	12 6	1200	3000 to 4000	...	309.60	185.75	290.40	174.25	277.60	196.50
6...	3 1/2 x 11	2 x 5/8	3 6 4 0	10 6 3 6	12 8	1400	4000 to 5000	...	309.60	185.75	290.40	174.25	277.60	196.50

EXTRAS FOR G. & T. WAGONS.

	Special One-Horse	No. 40	No. 42	No. 44	No. 46	No. 48	No. 50	No. 52
	List	Retail	List	Retail	List	Retail	List	Retail
Bodies	\$39.80	\$21.00	\$40.80	\$24.50	\$40.80	\$24.50	\$43.60	\$26.00
Spring Seat	9.60	5.75	9.60	5.75	9.60	5.75	9.60	5.75
Tongues	19.20	11.50	19.20	11.50	19.20	11.50	19.20	11.50
Shafts	16.80	10.25	16.80	10.25	16.80	10.25	16.80	10.25
Wheels Reg., per set	72.00	43.25	79.20	47.50	117.00	70.25	127.80	76.75
Solid Steel Axles...	16.50	9.90	17.60	10.55	19.60	11.75	22.80	13.75

Spring Seat for any of above, List, \$9.60; Retail, \$5.75. Tongues for Special One-Horse, No. 40 and No. 42, List, \$19.20; Retail, \$11.50. Shafts for same, List, \$16.80; Retail, \$10.10.

THREE SPRING DELIVERY WAGON



Size Steel Axle	Tires	Dimensions of						Wagon Complete No Brakes
		Height Wheels		Body		L'ght W'th D'pth	List	
1	1 x 1/4	Ft	In	Ft	In	Ft	In	Wght Cap
1 1/8	1 1/8 x 5-16	3	3	3	8	7	0	3 1 9 400 800 \$147.50 \$88.75
								500 1000 154.40 91.75
								Brake for above..... List, \$7.20; Retail, \$4.35
								Tops for above..... List, 52.80; Retail, 31.75

DUPLEX SPRING DELIVERY WAGON

Similar to above, except it has a duplex spring gear.

Size Steel Axle	Tires	Dimensions of						Wagon Complete No Brakes
		Beight Wheels		Body		L'ght W'th D'pth	List	
1	1 x 1/4	Ft	In	Ft	In	Ft	In	Wght Cap
1 1/8	1 1/8 x 5-16	3	3	3	8	7	0	3 1 9 400 800 \$136.80 \$82.25
								500 1000 142.28 85.75
								Brake for above..... List, \$7.20; Retail, \$4.35
								Tops for above..... List, 52.80; Retail, 31.75

METAL TRUCK WHEELS



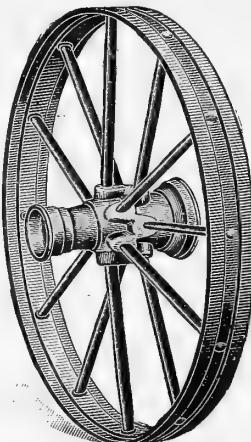
Diagram Showing How to Measure Your Skeins

As nearly every set of steel wheels we sell has to be made especially to correspond with measurements of axles for which it is intended, we generally make shipment direct from factory.

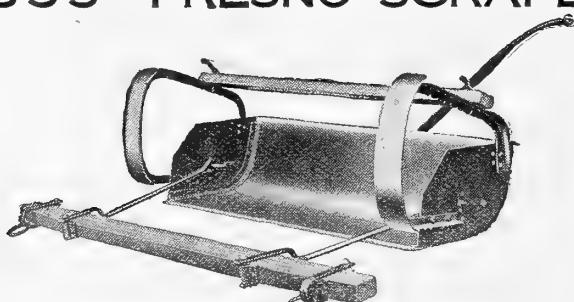
PRICES PER WHEEL WITH 4x 3/8 TIRES.

24-inch—Factory List Price, \$6.60.	Our Special Price, \$6.60
26-inch—Factory List Price, 6.90.	Our Special Price, 6.90
28-inch—Factory List Price, 7.30.	Our Special Price, 7.30
30-inch—Factory List Price, 7.70.	Our Special Price, 7.70
32-inch—Factory List Price, 8.40.	Our Special Price, 8.40
34-inch—Factory List Price, 8.80.	Our Special Price, 8.80
36-inch—Factory List Price, 9.50.	Our Special Price, 9.50

For 4x 1/2 Tire, prices on application. Wood Wheels, prices on application. Prices on other sizes quoted on application.



"SSS" FRESNO SCRAPER



Contractors that are not acquainted with the "SSS" FRESNO SCRAPER are overlooking one of the best tools ever designed for moving earth rapidly and cheaply.

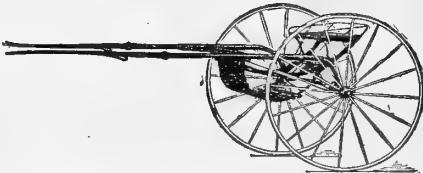
With this scraper dirt can be carried any distance and dumped in bulk, or it can be scattered in layers from one to twelve inches deep simply by adjusting two tail nuts on the cross bar; no wrench required.

MADE IN THREE SIZES.

	Width.	Approximate Weight.	Price.
No. 1—4-Horse	5 feet	300 lbs.	\$35.00
No. 2—2 or 4-Horse	4 feet	275 lbs.	\$33.50
No. 3—2-Horse	3 1/2 feet	250 lbs.	\$31.50

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

Heavy Studebaker Road Cart



No. 178 Heavy Road Cart has two-passenger slat seat, slat foot-rack, 1-inch double collar steel axle, 7/8-inch wheels, 46 inches high, and hickory shafts. Shipping weight, 125 pounds. List Price, \$77.60. Our Special Price, \$42.50.

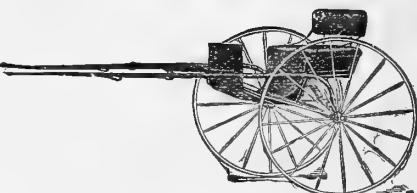
LIGHT ROAD CART

No. 4 1/2 Light Road Cart has low seat support, two-passenger slat seat spring hung in swinging shackles, 7/8-inch wheels, 46 inches high, 1-inch double collar steel axle and hickory shafts. Shipping weight, 125 pounds. List Price, \$63.00. Our Special Price, \$35.00.

HEAVY BREAKING CART

No. 5 Breaking Cart has low seat support, slat bottom seat, slat foot-rack, spring hung in swinging shackles, 1 1/8-inch wheels, 44 inches high, 1 1/8-inch double collar steel axle and extra long hickory shafts. Shipping weight, 175 pounds. List Price, \$72.00. Our Special Price, \$40.00.

STUDEBAKER PHAETON BODY CART



No. 179 Body Road Cart has one-inch double collar steel axle, 7/8-inch wheels, 46 inches high, wood dash, hinged seat for two passengers, box under seat, lazy back upholstered, drill trimmings and hickory shafts. Shipping weight, 150 pounds. List Price, \$100.00. Our Special Price, \$55.00.

OUR HANDY STEEL WHEEL FARM TRUCKS

All wood parts hardwood and well painted. Note the grooved tire, which protects the spokes of the wheel, and they last much longer than flat tire wheels. Made in two sizes. No. 22 with 3x9 skeins, capacity 3,000 lbs. No. 24 with 3 1/4x10 skeins, capacity 4,000 lbs.

Both Nos. 22 and 24 Trucks have 28-inch front and 30-inch rear wheels, 4x 3/8 tires.

Weights—No. 22, 475 lbs.; No. 24, 510 lbs.

No. 22 Truck—List Price, \$80.00; Our Special Price, \$47.50.

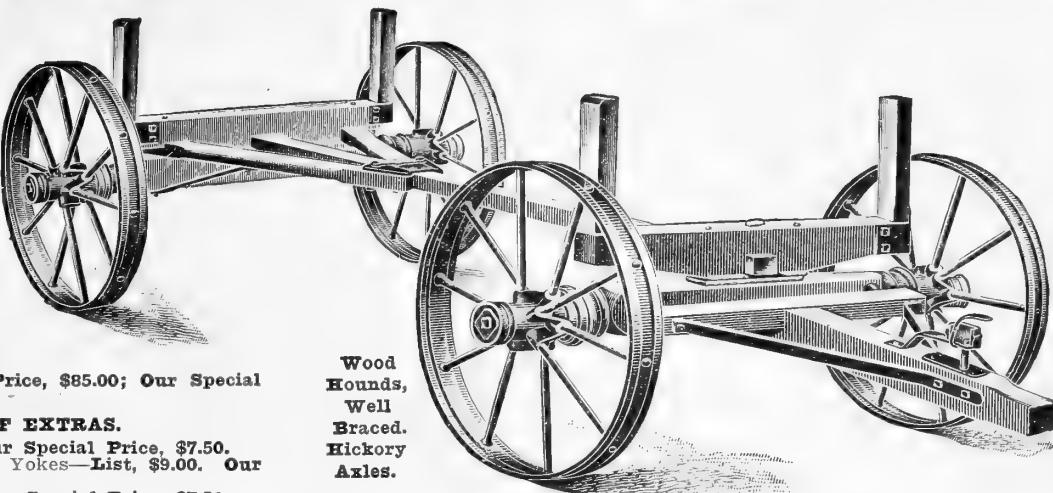
No. 24 Truck—List Price, \$85.00; Our Special Price, \$50.00.

PRICES OF EXTRAS.

Brake—List, \$12.00. Our Special Price, \$7.50.

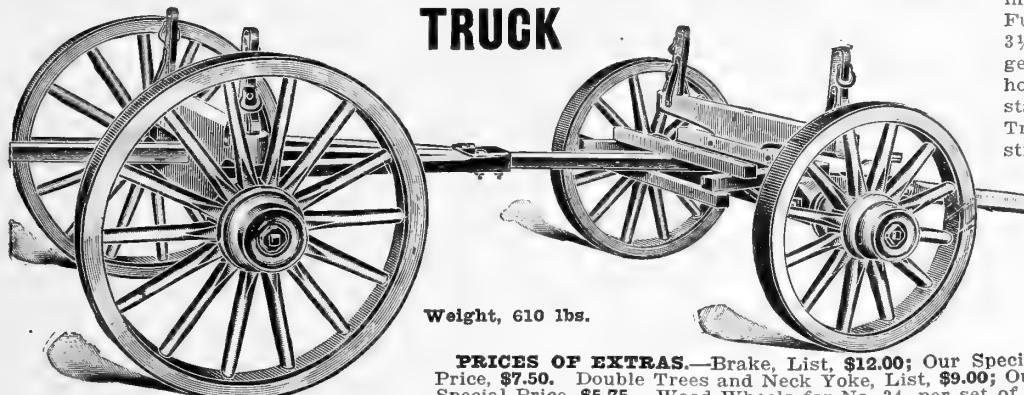
Double Trees and Neck Yokes—List, \$9.00. Our Special Price, \$5.75.

Shafts—List, \$12.00. Our Special Price, \$7.50.



Wood
Hounds,
Well
Braced.
Hickory
Axles.

OUR NO. 34 LOW-DOWN WOOD WHEEL FARM TRUCK



Weight, 610 lbs.

PRICES OF EXTRAS.—Brake, List, \$12.00; Our Special Price, \$7.50. Double Trees and Neck Yoke, List, \$9.00; Our Special Price, \$5.75. Wood Wheels for No. 34, per set of 4, List Price, \$80.00; Our Special Price, \$50.00.

This truck has low-down wood wheels 32 and 36 inches in height, with 4-inch tires. Furnished with hickory axles. 3 1/4x10-inch skeins, hardwood gear parts; both front and rear hounds, and has regular wagon standards, ironed and ringed. Truck nicely painted and striped. Capacity 4000 lbs.

With 3-inch tires—

List Price,	Our Price,
\$125.00	\$75.00

With 4-inch tires—

List Price,	Our Price,
\$130.00	\$76.25

THE OLD DOMINION WAGON

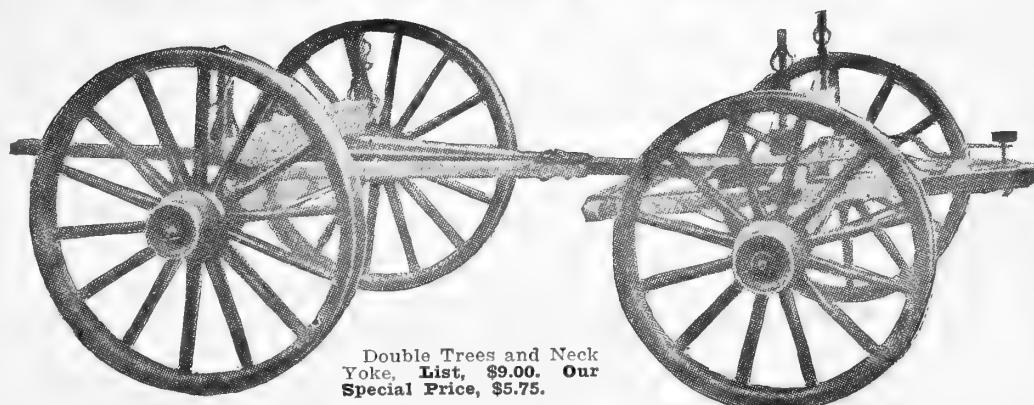
STIFF TONGUE TRUCK

3 1/4x10-inch hickory axle, wood wheels, 36-in. front, 42-in. rear, 3 x 3/8-in. tire. A serviceable wagon at a low price.

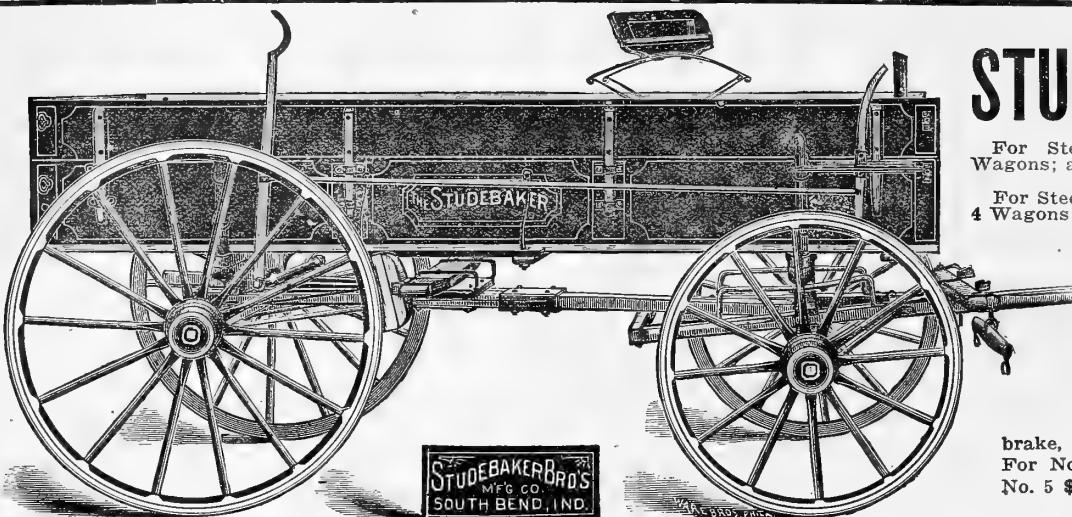
Weight, 675 Lbs.

List Price, Our Price,
\$145.00 \$87.50

PRICES OF EXTRAS.—Brake, List, \$12.00. Our Special Price, \$7.50.



Double Trees and Neck Yoke, List, \$9.00. Our Special Price, \$5.75.



STUDEBAKER

For Steel Skeins on No. 2 Wagons; add to Retail, \$8.00.

For Steel Skeins on Nos. 3 and 4 Wagons; add to Retail, \$9.00.

If **WAGONS** are wanted without brake, deduct on No. 2, \$8.00. On Nos. 3 and 4, deduct \$8.50. On No. 5, deduct \$9.00. If **GEAR**s are wanted without

brake, deduct for No. 2 \$7.00. For Nos. 3 and 4 \$7.50. For No. 5 \$8.00.

STANDARD TRIMBLE SKEIN FARM WAGON.

Size of Skeins	Height of Wheels		Size of Tire	Dimensions of Box			Approximate		Wagon complete with brake	Gear only with brake	
	Front	Hind		Lower	Top	Length	Weight	Capacity			
	Inches	Ft. In.	Ft. In.	Inches	In.	Ft.	In.	Lbs.	Lbs.		
2 1/2 x 8	3	6	3	10	2 x 3/8	12	8	10	0	2000	\$150.00
2 1/2 x 8	3	6	3	10	2 1/2 x 3/8	12	8	10	0	2000	155.00
2 1/2 x 8	3	6	3	10	3 x 3/8	12	8	10	0	2000	162.00
2 3/4 x 8	3	6	3	10	2 x 7-16	12	8	10	0	3000	158.00
2 3/4 x 8	3	6	3	10	2 1/2 x 7-16	12	8	10	0	3000	162.00
2 3/4 x 8	3	6	3	10	3 x 3/8	12	8	10	0	3000	165.00
2 3/4 x 8	3	6	3	10	4 x 3/8	12	8	10	0	3000	168.00
3 x 9	3	6	3	10	2 x 1/2	13	8	10	6	4000	162.00
3 x 9	3	6	3	10	2 1/2 x 1/2	13	8	10	6	4000	170.00
3 x 9	3	6	3	10	3 x 1/2	13	8	10	6	4000	172.50
3 x 9	3	6	3	10	4 x 1/2	13	8	10	6	4000	180.00
3 x 9	3	6	3	10	2 x 3/4	14	10	10	6	4500	185.00
3 1/4 x 10	3	6	3	10	2 x 3/8	14	10	10	6	4500	190.00
3 1/4 x 10	3	6	3	10	2 1/2 x 1/2	14	10	10	6	4500	194.00
3 1/4 x 10	3	6	3	10	3 x 1/2	14	10	10	6	4500	197.00
3 1/4 x 10	3	6	3	10	4 x 1/2	14	10	10	6	4500	200.00

TIP TOP FARM TRUCK.

Front Wheel. 36 inches Rear Wheel. 44 inches

Tires 3 x 3/8 in., wood wheels, Gear Only, No Brake \$90.00

No. 425—3 1/4 x 10-in. Cast Skeins....

Front Wheel. 36 inches Rear Wheel. 44 inches

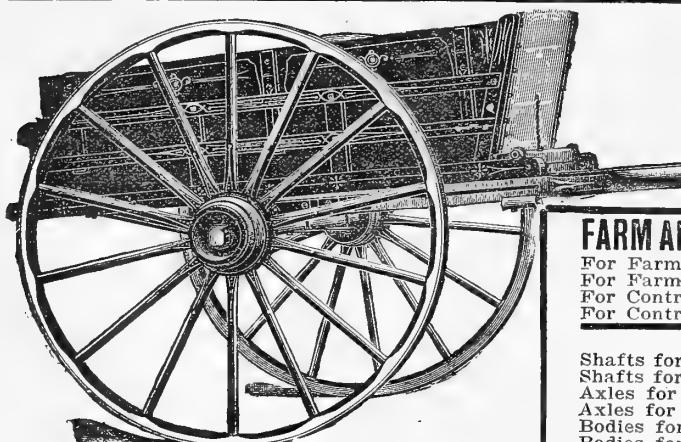
Tires 3 x 3/8 in., wood wheels, Gear Only, No Brake \$90.00

RURAL TEAM TRUCK WITH DROP TONGUE.

Front Wheel. 30 inches Rear Wheel. 36 inches

Tires 4 x 3/8 in., wood wheels, Gear Only, No Brake \$90.00

No. 415 1/4—3 1/4 x 10-in. Cast Skeins....



Farm and Contractor's Carts

With 5- and 6-inch Tires and extra heavy Contractors' Carts made specially to order when wanted.

These Carts are very strong, heavily ironed, nicely painted, striped and varnished.

1 1/2 inches.	3 inches.	4 ft. 10 in.	\$142.80	\$85.75
1 1/2 inches.	4 inches.	4 ft. 10 in.	153.60	92.25
2 inches.	3 inches.	4 ft. 10 in.	158.40	95.00
2 inches.	4 inches.	4 ft. 10 in.	162.90	101.50

FARM AND CONTRACTOR'S CART WHEELS

List Price, Ret'l Price
Per Pair. Per Pair.

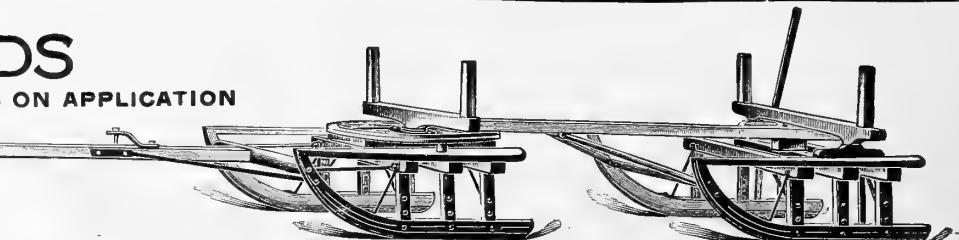
For Farm Cart, 1 1/2-inch axle, 3-inch tire.....	\$72.00	\$43.20
For Farm Cart, 1 1/2-inch axle, 4-inch tire.....	90.00	54.01
For Contractors' Carts, 2-inch axle, 3-inch tire.....	87.60	52.60
For Contractors' Carts, 2-inch axle, 4-inch tire.....	105.00	53.40

Shafts for 1 1/2 or 2-in. Axle Farm Cart, no irons, per pair.	\$18.00	\$10.80
Shafts for 1 1/2 or 2-in. Axle Farm Cart, with irons, ".....	20.40	12.25
Axles for 1 1/2-inch Axle Farm Cart.....	25.20	15.25
Axes for 2-inch Contractors' Cart.....	32.40	19.50
Bodies for Farm Cart.....	81.60	49.00
Bodies for Contractors' Cart.....	81.60	49.00

BOB SLEDS

DESCRIPTION AND PRICES ON APPLICATION

ALL PRICES IN CATALOG
SUBJECT TO CHANGE
WITHOUT NOTICE.





BROWN WAGON

Axles are made of dried selected hickory. Brown's Patent Extension Chilled Skeins. These Skeins support the axle where it has the greatest load to bear. Tongue Chains and Stay Chains fitted with springs. The Tongue Chains have a branch chain to prevent jerking and switching of the tongue, and eases the draft on the horses' necks. Wheels all positively soaked in hot oil. Tires never get loose. Write for special circular fully describing these Wagons.

Coil springs are applied to tongue—eases draft on team's neck when chains are forced to control tongue or hold back. They supply the place of the vibrating neck yoke. Yield to pull of chain or branch chain, saving team from jerking of tongue. Branch chains are added to each tongue, practically destroying side jerking and whipping motion. Acts same as neck yoke.

Wagon Complete with Brake. Gear only with Brake.

	Price.	Price.
000	\$148.50	\$121.00
000	155.00	127.75
00	152.00	124.50
00	158.50	131.00
1	156.25	128.75
1	162.80	135.50
1	173.80	146.50
2	167.25	139.75
2	173.80	146.50
2	184.80	157.50

No.	Size of Cast Skein.	Height of Front Wheels.	Height of Rear Wheels.	Size of Tire.	Depth of Box.	Capacity, Pounds.	Wagon Complete with Brake.	Gear only with Brake.
000	2 1/2 x 8"	3 1/4"	3 7/8"	2 1/2 x 1 1/2"	20"	2000	\$148.50	\$121.00
000	2 1/2 x 8"	3 1/4"	3 7/8"	3 x 1 1/2"	20"	2000	155.00	127.75
00	2 3/4 x 8 1/2"	3 1/4"	3 7/8"	2 1/2 x 1 1/2"	22"	2500	152.00	124.50
00	2 3/4 x 8 1/2"	3 1/4"	3 7/8"	3 x 1 1/2"	22"	2500	158.50	131.00
1	3 x 9"	3 1/4"	3 7/8"	2 1/2 x 1 1/2"	24"	4000	156.25	128.75
1	3 x 9"	3 1/4"	3 7/8"	3 x 1 1/2"	24"	4000	162.80	135.50
1	3 x 9"	3 1/4"	3 7/8"	4 x 1 1/2"	24"	4000	173.80	146.50
2	3 1/4 x 10"	3 1/4"	3 7/8"	2 1/2 x 9 1/2"	26"	4500	167.25	139.75
2	3 1/4 x 10"	3 1/4"	3 7/8"	3 x 9 1/2"	26"	4500	173.80	146.50
2	3 1/4 x 10"	3 1/4"	3 7/8"	4 x 9 1/2"	26"	4500	184.80	157.50

All of above Complete Wagons have Seats and Gear Brakes.

Following Special Gears have Linch Pin Steel Skeins, Gear Brakes, and Nos. 3, 4 and 5 have Side and Back Action Brakes with Round Coupling Poles:

2	3 1/4 x 10"	3 1/8"	4 1/4"	4 x 5 1/2"	...	4500	.....	\$176.00
3	3 1/4 x 11"	3 1/8"	4 1/4"	4 x 7 1/4"	...	5500	.....	187.00
4	3 3/4 x 12"	3 1/8"	4 1/4"	4 x 7 1/8"	...	6500	.....	214.50
5	4 x 12"	3 1/8"	4 1/4"	4 x 11"	...	7500	.....	242.00

STUDEBAKER Patent Steel Skeins

Revised
Price List
**PATENT
STEEL
SKEINS.**



Skeins with Boxes, per Set.

No.	Size.	With Nuts. Price.	Boxes Only, per Set. Price.
2	2 1/2 x 8"	\$14.00	\$2.05
3	2 3/4 x 8"	14.75	2.15
6	3 x 9"	15.70	2.30
9	3 1/4 x 10"	18.15	2.65
11	3 1/2 x 11"	20.60	3.00
14	3 3/4 x 12"	24.40	3.50
15	4 x 12"	29.00	4.20
17	4 1/2 x 13"	43.50	6.25

With Linch Pins.

No.	Size.	Price.
21	3 1/4 x 10"	\$18.15
23	3 1/2 x 11"	20.55
25	3 3/4 x 12"	24.20
26	4 x 12"	29.00

Price.

Made of the best grade of plate steel. Solid extension back of the collar keeps the wet and grease from working in on axle. Extension back of collar covers all tapering portions and more of the wood of the axle than any other skein.

STEEL SKEINS FOR PETER SCHUTTLER WAGONS.

	Skein Only with Nut or Linch Pin, no Box, each.	Box Only, each.
3 1/4 x 10"	\$4.75	\$1.00
3 1/2 x 11"	5.50	1.25
3 3/4 x 12"	6.20	1.50
4 x 12"	7.00	1.75
4 1/4 x 12"	7.75	2.00
4 1/2 x 13"	10.25	2.25

S. B. Trade Cast Skeins



	Cast Skeins, with Boxes. Our Special Price.	Boxes Only. Our Special Price.
9	2 1/2 x 8"	\$4.75
10	2 3/4 x 8"	5.25
13	3 x 9"	6.00
16	3 1/4 x 10"	7.50
19	3 1/2 x 11"	8.30
22	3 3/4 x 12"	9.40
23	4 x 12"	10.60

All sizes, from 2 1/2 x 8 to 4 x 12, inclusive, are made with truss attachment, as shown in cut. These skeins are made of a better quality of iron than the ordinary trade cast skeins.

PATENT TRUSS CAST SKEINS AND BOXES FOR STUDEBAKER WAGONS.

Our Special Price.

No. 3—Size, 2 1/2 x 8"; with nuts, per set.....	\$5.25
No. 4—Size, 2 3/4 x 8"; with nuts, per set.....	5.85
No. 5—Size, 3 x 9"; with nuts, per set.....	6.65
No. 6—Size, 3 1/4 x 10"; with nuts, per set.....	8.30
No. 7—Size, 3 1/2 x 11"; with nuts, per set.....	9.10

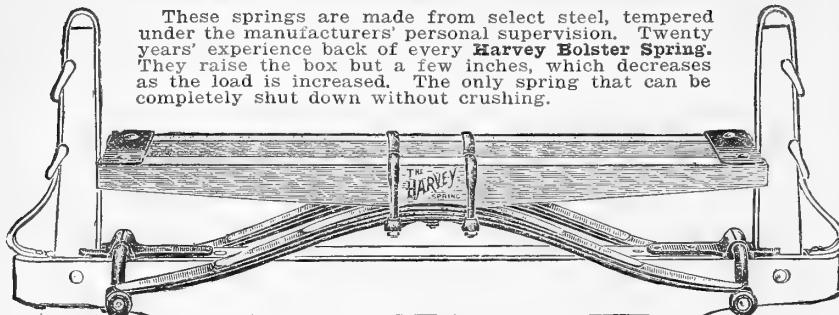
CAST AND STEEL SKEINS FOR BROWN WAGONS.

Each.

2 3/4" Cast Skeins, pat. extension for bolt or clip, with box	\$2.75
3" Cast Skeins, pat. extension for bolt or clip, with box	3.10
3 1/4" Cast Skeins, pat. extension for bolt or clip, with box	3.60
3 1/2" Steel Skeins, long sleeve, with box.....	6.50
3 3/4" Steel Skeins, long sleeve, with box.....	7.75
4" Steel Skeins, long sleeve, with box.....	9.00

HARVEY XXX BOLSTER SPRINGS

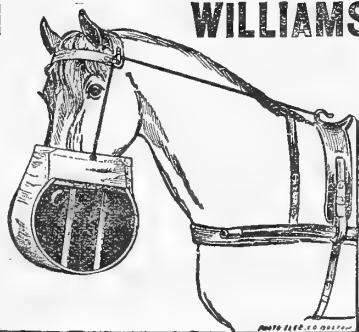
These springs are made from select steel, tempered under the manufacturers' personal supervision. Twenty years' experience back of every **Harvey Bolster Spring**. They raise the box but a few inches, which decreases as the load is increased. The only spring that can be completely shut down without crushing.



Capacity.	42-inch.	Capacity.	42-inch.
1500.	\$13.35	5000.	\$26.65
2000.	15.35	6000.	29.33
2500.	17.35	8000.	34.65
3000.	20.00	10000.	40.00
4000.	24.00		

NO. 3 HARVEY JR. BOLSTER SPRINGS

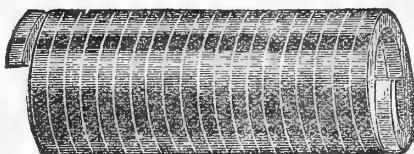
Capacity.	36" or 38"	40" or 42"
1000.	\$6.65	\$7.55
1500.	7.55	8.35
2000.	8.35	9.25
2500.	9.25	10.00

WILLIAMS' FEED BAG

Heavy duck, with woven-wire sides. It folds into a small space. The best wire-ventilated bag made. **Our Special Price**, \$3.00.

MODOC FEED BAG.
Plain wood bottom, overhead rope, with patent pocket. **Our Special Price**, \$1.00.

PIONEER FEED BAG.
and pulley attachments. Patent center grooved wood bottoms and leather ventilators. **Our Special Price**, \$2.00.

**Coil
Axle
Washers**

100 Washers in a Box.

$\frac{7}{8}$ -inch, per box—List Price, 30c. Our Special Price, 20c.

1-inch, per box—List Price, 32c. Our Special Price, 20c.

SOLID CUT AXLE WASHERS

Five Sets in a Box.	List Price.	Our Special Price.
$\frac{3}{4}$ in., per box.....	\$.34	\$.20
$\frac{5}{8}$ in., per box.....	.38	.25
1 in., per box.....	.44	.30
$1\frac{1}{8}$ in., per box.....	.50	.30
$1\frac{1}{4}$ in., per box.....	.56	.35

STAR SHAFT COUPLER AND ANTI-RATTLER

Simplest, safest and strongest coupler made. No rivets or joints to wear out or break. **List Price**, dozen pairs, \$4.00. **Our Special Price**, per pair, 25c.



Black Japan finish with highly polished reflector, 4-inch highly polished lens in front and 3-inch Ruby lens in rear. Side bracket attachments, to fit square or round post. It is an indispensable lamp to the man on the road. Will shed a clear light 200 feet ahead.

Price.....\$3.00

Parcel post weight, 6 pounds.

RAYO DRIVING LAMP No. 21

Black baked Japan finish. Fount capacity 21 hours.

No. 1 Brass Burner and Cone.

Large Brass Oil Filler.

"A" $\frac{5}{8}$ -inch wick, inserted ready to light. Pony C. B. Selected RAYO Globe, Bull's-eye 3-inch Ruby Disk in Reflector. Bracket included to attach to vehicle.

PRICE.....\$3.00

HITCHING POST

This Hitching Post is made of steel pipe. Equipped with wrought iron base and heavy bail. It cannot be pulled out or broken. **List Price**, \$6.00; **Retail**, \$3.50.

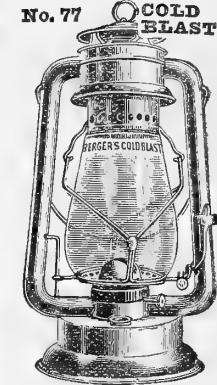
TUBULAR LANTERNS**NO. 65 SIDE LIFT.**

Patented one-piece crimped tubes. No. 1 burner, $\frac{5}{8}$ -inch wick, No. 0 globe, 1 o'clock burner, simplicity side lift, retinned and tested founts. Especially designed for severe usage.

PRICE, 90c.

Hood Reflector Dashboard Lantern.

PRICE, \$2.00.

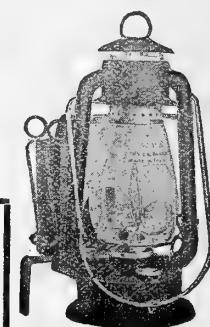
NO. 65 Tubular.**NO. 77 Q COLD BLAST.**

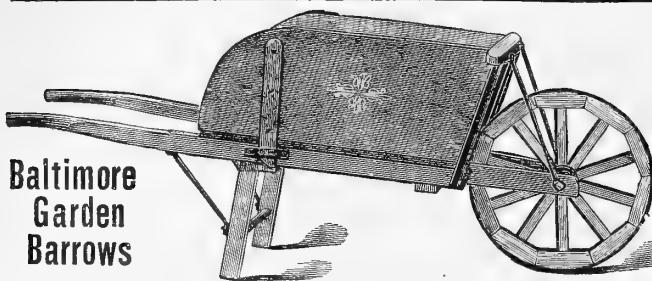
Clear, white, smokeless light, perfect combustion, fiercest gales cannot blow out, or "fiercest" roads jolt out. **Price**, \$1.50.

NO. 77 Cold Blast Lanterns, with Hood Reflector, \$2.00.

Eureka Driving Lamp

DASH CLAMP HOLDER





Baltimore Garden Barrows

Made of seasoned wood, double frames, firmly bolted, iron braced and so constructed that by removing one bolt (the axle) and two nuts they can be folded flat down and shipped at lowest rate of freight.

No. 4, MEDIUM SIZE OR MAN'S BARROW.

Inside measurement of box—Width at wheel, 19½ inches; depth, 11 inches; width at handles, 23¾ inches. Length of handles, 48 inches; wheel, diameter, 18 inches; tire, 1¾x3-16-inch; spokes, 1x1 inch; 8 spokes. Sides painted green, balance of barrow red, sides striped. Weight, 50 lbs. Wood Wheel, List Price, \$12.50; Our Special Price, \$7.00. Steel Wheel, List Price, \$12.50; Our Special Price, \$7.00.

No. 5, LARGE SIZE OR MAN'S BARROW.

Inside measurement of box—Width at wheel, 21 inches; depth, 12 inches; width at handles, 23¾ inches. Length at handles, 51 inches. Wheel diameter, 18 inches; tire, 1¾x3-16 inches; spokes, 1x1¼ inches. Weight, 60 lbs. Finished as above. Wood Wheel, List Price, \$13.50; Our Special Price, \$7.50. Steel Wheel, List Price, \$13.50; Our Special Price, \$7.50.

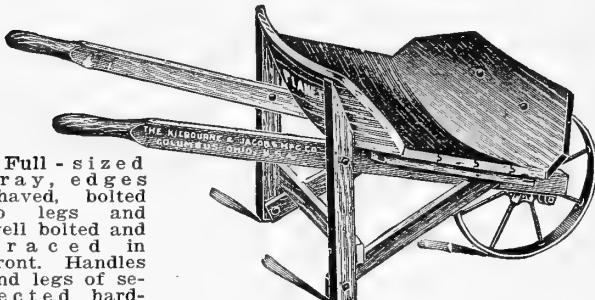
No. 1 Special Garden Barrow

Size—30 inches long, 24 inches wide in front, 25 inches in back. Sideboards—12 inches high, 30 inches long. Handles—5½ feet long, 2¾x1¼ inches. Wheel—21 inches diameter, 6 spokes. Hub—3-inch diameter in center. 2-inch diameter at ends.

No. 1 Barrow, with 1½-inch tread. Weight, 60 lbs. Six crated in one package, 56½ cubic feet.

Wood Wheel, List Price, \$16.50; Our Special Price, \$9.00. Steel Wheel, List Price, \$16.50; Our Special Price, \$9.00.

The Baltimore Canal Barrow



Full-sized tray, edges shaved, bolted to legs and well bolted and braced in front. Handles and legs of selected hard-wood, wheels painted. Furnished in steel wheel. Steel Wheel, List Price, \$7.00; Our Special Price, \$4.00. Weight, with steel wheel, 48 lbs.

THE PLAIN BOLTED CANAL BARROWS.

Ordinary size; bent tray; legs bolted to handles and well braced. Furnished with steel wheel. Weight, with steel wheel, 45 lbs.

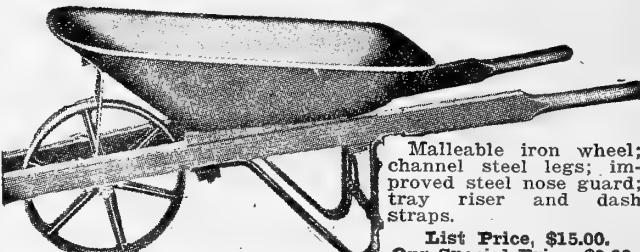
Steel Wheel, List Price, \$6.50; Our Special Price, \$3.75.

WHARF OR OYSTER BARROW

Top is iron-banded, strongly braced and bolted; 4 to 5 bu. capacity; weight, 60 lbs.

Steel Wheel, List Price, \$12.50. Our Special Price, \$7.00.

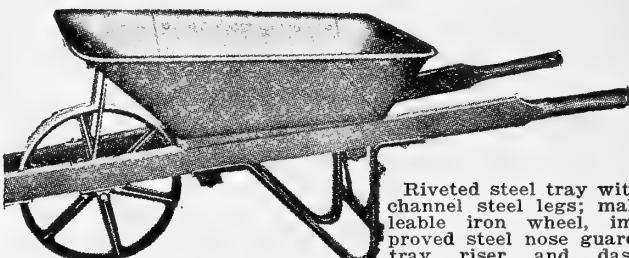
SOLID PRESSED STEEL TRAY BARROW



Malleable iron wheel; channel steel legs; improved steel nose guard; tray riser and dash straps.

List Price, \$15.00. Our Special Price, \$9.00.

RIVETED STEEL TRAY BARROW

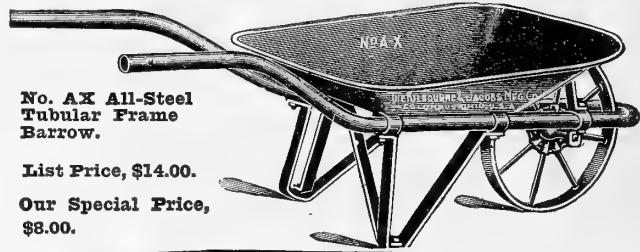


Riveted steel tray with channel steel legs; malleable iron wheel, improved steel nose guard, tray riser and dash straps.

Capacity, 4 cubic feet; weight about 65 pounds.

List Price, \$15.00. Our Special Price, \$9.00.

ALL STEEL BARROW

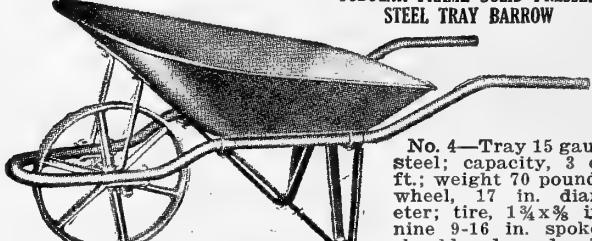


No. AX All-Steel Tubular Frame Barrow.

List Price, \$14.00.

Our Special Price, \$8.00.

TUBULAR FRAME SOLID PRESSED STEEL TRAY BARROW



No. 4—Tray 15 gauge steel; capacity, 3 cu. ft.; weight, 70 pounds; wheel, 17 in. diameter; tire, 1¾x¾ in.; nine 9-16 in. spokes, shouldered and riveted; axle, ¾ in. For moving earth, ashes and light work.

List Price, \$17.00. Our Special Price, \$9.50.

No. 5—Tray, 14 gauge, steel; capacity, 5 cubic feet; weight, 85 lbs.; mounted on same frame and wheel as No. 4. For general purposes and light running. It will stand hard usage.

List Price, \$19.00. Our Special Price, \$10.50.

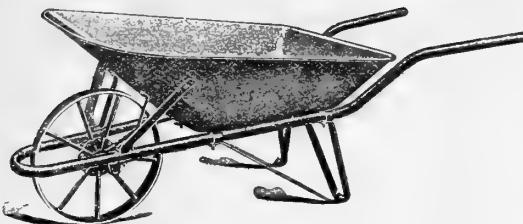
Star Steel Tray Barrow



List Price, \$12.50. Our Special Price, \$7.00.

Solid Pressed Steel Tray Barrow, with Steel Wheel. Tray being higher in front, permitting a practical level load.

SOLID PRESSED STEEL TRAY COAL AND COKE BARROW NO. 10



One-piece tubular steel frame extending around in front of wheel. Frame strongly braced and well ironed. Tray of best quality steel, with wired edge. Size No. 10—Gauge of steel in tray, 13; length of top of tray, 41½ in.; width of top of tray, 33 in.; depth at wheel, 12 in.; depth at handle, 6 in.; capacity, 6 cubic feet; weight 110 lbs. List Price, \$24.50; Retail, \$13.50.

Steel Wheels. List Price, \$4.50; Retail, \$2.50. Extra Trays. List Price, \$14.50; Retail, \$8.00.

Straight Handle Stone Barrow

Strong, well made, iron strapped over bottom, and well bolted together. Handles 6 feet long; legs, 12 inches long; bottom, 1¼ inches thick by 23 inches wide by 27 inches long; dash, 10 inches high; weight, 64 pounds. List Price, \$10.80; Retail, \$6.00.

STRAIGHT HANDLE BRICK BARROW

List Price, \$14.40. Retail, \$8.00

PLAIN PLATFORM TRUCK



We are prepared to quote special prices on Trucks of every description. If you want anything special, write us for prices.

Diam.

No.	Size of Platform.	Wgt. Whs.	Lbs.	Ins.	List.	Retail.
82	2 ft. 4 in. by 3 ft. 4 in.	100	7½	\$29.50	\$18.50	
83	2 ft. 6 in. by 3 ft. 6 in.	115	7½	35.74	22.50	
84	3 ft. by 4 ft.	125	8½	37.34	23.50	

Can furnish Special Trucks at lowest prices; also Truck Wheels. Write for prices.

IMPROVED FOUR-WHEEL PLATFORM TRUCK

For Can-
ning House,
Railroad
Stations and
Wa rehouse.
C he a p
strong and
well made.



Size	Diam.	Diam.	Platform	Whts.	Caster	Weight	List	Retail
No. 1—2x4 ft.	12 in.	6 in.	152 lbs.	\$35.00		\$22.00		
No. 21—3x5 ft.	18 in.	9 in.	255 lbs.	50.25		31.50		

Concrete and Mortar Barrows



Made especially to carry a full load of soft concrete or mortar without slopping

4 cubic feet.
Weight, 75 lbs.

	List Price.	Retail Price.
No. 115—Deep, Narrow Tray, straight front	\$17.00	\$9.50
No. 444—Deep, Narrow Tray, rounded front and corners..	18.00	10.00

	List Price.	Our Spec'l Price.
Wood Wheels for Nos. 4 and 5 Garden Barrows	\$3.00	\$1.75
Steel Wheels for Nos. 4 and 5 Garden Barrows	3.60	2.00
Wood Wheels for No. 1 Garden Barrow	4.10	2.25
Steel Wheels for No. 1 Garden Barrow	3.00	2.00
Steel Wheels for Nos. A4 and B5	3.60	2.00
Steel Wheels for Solid Pressed Steel Tray Barrow	4.60	2.50
Steel Wheels for No. 10 Barrow	5.00	3.00
Wood Wheels for Canal Barrow	2.50	1.50
Steel Wheels for Canal Barrow	3.00	1.75
Tray—No. 4 (All Steel Barrow)	10.00	5.50
Tray—No. 5 (All Steel Barrow)	11.00	6.00



BALTIMORE STORE TRUCK.

Store Trucks

BALTIMORE STORE TRUCKS

List Price, \$6.50 Retail, \$4.00

NEW YORK PATTERN

HALF STRAPPED.

	List Price.	Retail Price.
No. 1.....	\$12.00	\$7.50
No. 2.....	13.40	8.40
No. 3.....	20.60	12.90
No. 4.....	24.00	15.00
No. 5.....	29.40	18.40

FULL STRAPPED.

	List Price.	Retail Price.
No. 1.....	\$12.60	\$7.90
No. 2.....	14.20	8.90
No. 3.....	22.00	13.75
No. 4.....	25.00	15.65
No. 5.....	30.50	19.10

NEW YORK PATTERN.—SIZES.

Length	Width at Handle	Width Nose	Upper Bar	Diam.	Whts.	Weight
No. 1	4'6"	12½"	18"	8"	42 lbs.	
No. 2	4'5"	14"	19½"	9½"	44 lbs.	
No. 3	4'8"	15"	21"	9½"	72 lbs.	
No. 4	5'0"	16"	22½"	11"	85 lbs.	
No. 5	5'3"	17"	24"	11"	90 lbs.	



NEW YORK PATTERN.

Dimensions and Prices Cast-Iron Truck Wheels

	Lbs.	Hgt.	Face.	Hub.	Bore.
	Wt.	In.	In.	In.	In.
No. 0	4½	6½	1½	2¼	¾ x ¾
Nos. 1 and 2	7½	8	2	2¾	¾ x ¾
Nos. 4 and 5	17½	11	3	3¾	1 x 1½
No. 3	12¾	9½	2½	3¼	¾ x 1
Heavy	25	12	3	3¾	1 x 1½

Pronounced "RU" as in RUBY
RU-BER-OID
 ROOFING
 COSTS MORE - WEARS LONGER

FOR OVER 23 YEARS THE STANDARD.

RU-BER-OID is the original ready-to-lay roofing, and was for several years the only roofing of this character. Different from and superior to all other prepared roofing, in that **RU-BER-OID** compound or gum, an exclusive combination of high-grade, water-proof, acid- and fire-resisting ingredients is used in its manufacture. This gum is used in no other roofing. That the first roofs of **RU-BER-OID** applied in 1892 are still giving satisfactory service is indisputable evidence of unequalled durability. **RU-BER-OID** contains no rubber. It contains no tar. It contains no paper. It contains no asbestos. It is not an asphalt roofing. **RU-BER-OID** is tasteless. It is odorless. It can be used on roofs from which drinking water is conserved. **RU-BER-OID** is fire-resistant. Hot coals thrown on a roof covered with it do not set fire to the fabric, nor to the boarding underneath. **RU-BER-OID** is a non-conductor of heat. It keeps the heat in winter, and the heat out in summer. **RU-BER-OID** will outlast tin, iron or shingles. It has outlasted its upwards of 300 imitations, variously known as "rubber" roofings, "asphalt" roofings, "asbestos" roofings, etc. Put up in rolls 36 inches wide, containing 108 square feet.



Medium (1-ply), 108 sq. ft.; weight, 35 pounds. Price.....\$3.00

Heavy (2-ply), 108 sq. ft.; weight, 45 pounds. Price.....\$3.75

Extra heavy (3-ply), 108 sq. ft.; weight, 55 pounds. Price.....\$4.25



GREEN---SLATE SURFACED RED---SLATE SURFACED



These shingles possess all the durability, attractiveness, weather protection and fire-resisting qualities of the modern asphalt shingle—plus 50 per cent. or more saving in the cost of application, because they can be laid so quickly.

Five shingles laid at a time—no spacing—no chalk line—one-half less nails—one-half less nail holes—four-fifths less cracks—no painting—no repairs.

REX STRIP SHINGLES are water-proofed, with pure refined asphalt. The wearing surface is natural chipped slate in handsome red and green colors. The colors are absolutely permanent.

Price, per square.....\$8.00

This material is also put up in rolls of 108 square feet. Nails and cement furnished.

Price, per roll.....\$3.75

COLORED **RU-BER-OID** ROOFING



COLORED RU-BER-OID possesses all the enduring qualities of the Gray Ru-ber-oid. The attractive colors are permanent—built into the roofing.

COLORED RU-BER-OID is furnished in rolls either 24 inches wide, containing 110 square feet, or 36 inches wide, containing 108 square feet, sufficient to cover one hundred square feet—the extra material being allowed for the two-inch laps.

Tile-Red (Medium Weight), 45 pounds.....\$6.00

Tile-Red (Heavy Weight), 55 pounds.....\$6.75

RU-BER-INE CEMENT necessary for seams, together with special large-headed sherdarized (zinc coated) nails, are included in each roll of **RU-BER-OID** and **COLORED RU-BER-OID ROOFING**.

"ZOLIUM"

THE ROOFING WITH THE TILE EFFECT.

Dark Red, per square.....\$7.50

REX FLINTKOTE ROOFING

This material has a continuous service record of over fifteen years. It has proved its remarkable durability, weather-protecting and fire-resisting qualities on all kinds of buildings throughout practically the entire world, and under the severest conditions.

The way to buy roofing is not on claims of what it will or may do—but on the service it has shown, and the record of **REX FLINTKOTE** is your assurance of having a roof that meets every requirement.

Packed in rolls 36 inches wide, containing 108 square feet. Nails, patent caps, cement and directions for laying furnished free with every roll.

Prices: One-Ply, \$2.75; Two-Ply, \$3.25; Three-Ply, \$3.75.



VULCANOID ROOFING

Cheaper than tin, slate, tile or shingles. An attractive and permanent roofing at a moderate cost. Made from the finest grade of wool felt. Guaranteed to contain no coal tar. Weather-, rot- and acid-proof. Does not taint rain water. Adaptable to every style of building. Made in 1-, 2- and 3-ply.

1-ply weighs 34 lbs. Price.....	\$2.75
2-ply weighs 44 lbs. Price.....	3.25
3-ply weighs 54 lbs. Price.....	3.75

Per Roll of 108 Square Feet.

CERTAIN-TEED ROOFING

When you want a smooth surfaced Roofing for your House, Barn, Garage, Factory, Warehouse, Sky-scraper, Church, Apartment Building, or Farm Building, get

CERTAIN-TEED

—guaranteed 5, 10, or 15 years for 1, 2, or 3-ply respectively—backed by the responsibility of the World's greatest and biggest Roofing and Building Paper Mills. The Certain-teed label on this Roofing stands for a definite guaranteed service—a protection for you. Why try to save a dollar or two by putting on a cheap Roof that is not guaranteed, when you can buy Certain-teed for just a little more money and get much longer service on your Roof. In the long run it's less expensive to buy Certain-teed.

1-ply, 108 square feet.....	\$2.50
2-ply, 108 square feet.....	3.00
3-ply, 108 square feet.....	3.50

COMPETITION GRADE ASPHALT ROOFING

Intended for temporary buildings and takes the place of 2 and 3-Ply Tar Paper and will give much better service.

1-ply, 108 square feet; weight, 35 lbs.....	\$2.00
2-ply, 108 square feet; weight, 45 lbs.....	2.35
3-ply, 108 square feet; weight, 55 lbs.....	2.75

GENASCO ROOFING

THE STRIKING FEATURES OF GENASCO SMOOTH SURFACE READY ROOFING:

are great durability and reasonable cost. These are the advantages that count most whenever you roof a building, yet nowhere are they combined as in Genasco Ready Roofing.

WHY IT IS DURABLE

The asphalt with which Genasco is water-proofed comes from the source that produces asphalt of the highest grade and most uniform quality in the world—Trinidad Lake.

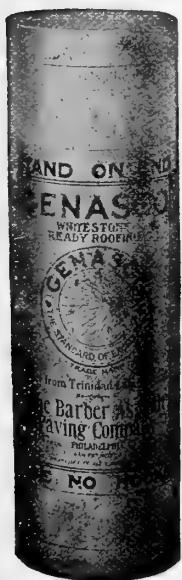
It is the most effective waterproofing and weather-resisting material known.

With our knowledge of asphalt, covering over a third of a century's experience we combine this natural product by a scientific process with high-grade felt, to make Genasco Smooth Surface Ready Roofing.

Trinidad Lake Asphalt, which has withstood the scorching sun and terrific storms of the Tropics for centuries, gives Genasco its lasting life.

Upon a foundation of densely compressed felt, thoroughly saturated with the natural asphalt, a heavy coating of asphalt is applied to both sides, making Genasco a pliable, smooth-surface roofing that retains its life through years of sun, rain, snow, wind, heat and cold.

WITH KANT LEAK KLEETS
1-Ply, \$3.25; 2-Ply, \$3.90; 3-Ply, \$4.50. With nails and cement, 25c. less per roll.



GRITCO ROOFING

GRITCO is an exceedingly high-grade roofing, made especially for us, and fully guaranteed. It does not possess the exclusive features found in the Rex Flintkote, although climate conditions will not affect it for many years. The ingredients used in the GRITCO are especially selected for their chemical adaptability, and in manufacture the utmost care is used to produce a uniform and dependable article.

Sufficient nails and cement packed in each roll.

Prices: One-Ply, \$2.50; Two-Ply, \$2.90; Three-Ply, \$3.00.

108 Square Feet to Roll.

GRIFTURNOID RUBBER ROOFING



This is a very high-grade roofing made of wood felt, thoroughly saturated with a non-drying gummy compound that remains soft and pliable in either hot or cold weather, and is absolutely water-proof. It is coated with a non-oxidizing water-proof coating. This combination produces a roof covering good for all time, in all climates, under all conditions. It is strong, durable and easy to lay. It is acid and alkali-proof, and fire-resistant. Is made in one-, two- and three-ply, weighing 35, 45 and 55 pounds, respectively.

Each roll is packed with nails, caps and cement paint.

108 square feet to roll.

1-Ply, \$2.50. 2-Ply, \$2.75. 3-Ply, \$3.25.



TURCO ROOFING

Turco is a reliable roofing, but cannot be expected to give the same service as the Rex Flintkote or Gritco, because its price is less; but for temporary buildings and small buildings, where conditions are not severe, Turco will give you good service.

The materials used in the manufacture of Turco are selected with care, and are put together with care, and are carefully examined before shipped.

Sufficient nails and cement packed in each roll.

Prices: One-Ply, \$2.25; Two-Ply, \$2.60; Three-Ply, \$3.00.

108 Square Feet to Roll.

TARRED FELT

No. 3—Rolls 500 square feet, 60 lbs.....\$3.00

SLATERS' FELT.

500 square feet rolls, 30 lbs.....\$1.75

INSULATING PAPER.

Heavy—500 square feet rolls, 35 lbs.....\$2.75

Rosin Sized Sheathing Paper

In Rolls of 500-Square Feet Each.

25-lb. Sheathing Paper, per roll of 500 square feet.....\$1.25
30-lb. Sheathing Paper, per roll of 500 square feet.....1.50
40-lb. Sheathing Paper, per roll of 500 square feet.....2.00

Special Prices in 10-roll lots; also by the ton.

ROOFING CAPS

Per Pound10c.

CERTAIN-TEED PAINT

No. 461—RED ROOF PAINT.

1-Gallon Cans\$1.75
5-Gallon Cans8.00

No. 460—BATTLESHIP GRAY PAINT.

1-Gallon Cans\$3.25
5-Gallon Cans15.00

BESTO RED ROOF PAINT

1 Gallon, per gallon.....\$2.25

BESTO GREEN ROOF PAINT

1 Gallon, per gallon.....\$2.25

GRITCO CARBON PAINT

1 Gallon, per gallon.....\$1.25
5-Gallon Cans, per gallon.....1.10

GRITCO ROOFING PAINT

For Painting Rubber, Tin, Iron or Prepared Roofings.

1-Gallon Cans\$1.25
5-Gallon Cans5.50
½ and Full Barrels, per gallon.....1.00

EVERJET ROOFING PAINT

1-Gallon Cans\$1.10

GALVANIZED STEEL CORRUGATED ROOFING

1¼ and 2½-inch corrugations, standard 29 gauge open hearth steel thoroughly galvanized. Made in sheets 26 inches wide; 6, 7, 8, 9 and 10 feet long. Can also furnish same in 27 gauge.

Galvanized Ridge Roll, both in corrugated and plain.

Write for Special Prices.

LEAD WASHERS

Per Pound\$0.30

GALVANIZED ROOFING NAILS

With extra large heads, per pound.....12c.

GRITCO ROOFING CEMENT

This cement is made especially to use on leaky roofs, and will stop leaks in Tanks, Silos, Barns, Cisterns and Flashings. Can be used anywhere on any kind of leak.

5-Pound Pail	\$1.00
10-Pound Pail	1.75
25-Pound Pail	3.75
50-Pound Pail	7.50

HARD OIL VARNISH

1-Gallon Cans\$2.75

ASPHALTUM VARNISH

1-Gallon Cans\$2.00

JAPAN DRYER

1-Gallon Cans\$2.00

GENASCO ASPHALT PUTTY

This material is especially adapted for closing openings around chimneys, skylights, side walls, etc., as well as for filling cracks and repairing leaks in metal roofs, valleys and gutters—in fact, all metal surfaces which have partially rusted out.

For making repairs to felt or composition roofs no better material is obtainable. Leaks frequently occur by reason of expanding seams or the roofing pulling away from fire-walls. These conditions can be overcome and leaks immediately and effectively stopped by applying **Genasco Asphalt Putty** at the source of the trouble.

Genasco Asphalt Putty can be applied quickly by anyone, thus providing a remedy for leakage without delay, and before excessive damage results.

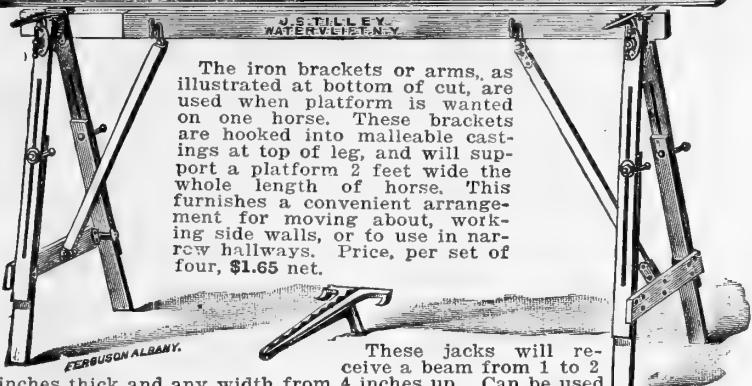
Genasco Asphalt Putty can be spread easily with a trowel or putty-knife, and absolutely seals against water. It does not become hard and brittle, nor dry out and go to pieces, but retains its life and cementitious qualities indefinitely.

Genasco Asphalt Putty is always ready for immediate use; no heating nor mixing necessary. Easy to apply; economical and efficient—therefore, the ideal product for repair work.

Genasco Asphalt Putty can be secured in two colors—Red and Black. Shipped in cans of convenient size, of 1, 5, 10, 25 and 50 pounds, as well as in half-barrels and barrels.

5-Pound Cans	\$1.00
10-Pound Cans	1.75
25-Pound Cans	3.75
50-Pound Cans	7.50

TILLEY ADJUSTABLE SCAFFOLDING JACKS



The iron brackets or arms, as illustrated at bottom of cut, are used when platform is wanted on one horse. These brackets are hooked into malleable castings at top of leg, and will support a platform 2 feet wide the whole length of horse. This furnishes a convenient arrangement for moving about, working side walls, or to use in narrow hallways. Price, per set of four, \$1.65 net.

These jacks will receive a beam from 1 to 2 inches thick and any width from 4 inches up. Can be used on a 3-foot to a 30-foot beam.

Are light, strong and suitable for plasterers, carpenters, painters and paperhangers, the putting up of metal ceilings, shafting, pulleys, etc. Nos. 8 and 13 have an extra end brace on slotted legs, with iron brace at each end of same. Nos. 9, 10, 14, 15 and 16 have extra end braces, same as 8 and 13; also have an extra grip on friction bolt in each traveling leg, making the jacks much stronger than formerly. This improvement consists of suspension brackets, which permits of making a scaffold at any elevation lower than the height of the jack when down to its limit. These brackets can be used with jacks already sold. They cost but \$1.65. With them and the proper size jack the scaffold can be made to fit a store or basement.

Fig. 2 shows two jacks represented in Fig. 1 as "knocked down." It is unnecessary to comment upon its compact form.

3 $\frac{3}{4}$ x1 $\frac{1}{4}$ Slotted Leg. 3 $\frac{1}{2}$ x1 $\frac{1}{8}$ Traveling Leg.

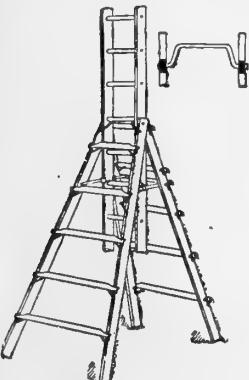
No.		Per Jack.
6.	Stands 4 ft. high, will extend to 6 ft.	\$5.25
7.	Stands 5 ft. high, will extend to 8 ft.	6.05
8.	Stands 6 ft. high, will extend to 9 ft.	6.60
9.	Stands 7 ft. high, will extend to 11 ft.	7.50
	Brackets, per set of four, net.....	1.65

EXTRA HEAVY FOR PLASTERERS AND MILL WORK.

4x1 $\frac{1}{4}$ Slotted Leg. 3 $\frac{3}{4}$ x1 $\frac{1}{8}$ Traveling Leg.

No.		Per Jack.
11.	Stands 4 ft. high, will extend to 6 ft.	\$6.00
12.	Stands 5 ft. high, will extend to 8 ft.	6.75
13.	Stands 6 ft. high, will extend to 9 ft.	7.50
14.	Stands 7 ft. high, will extend to 11 ft.	8.25
15.	Stands 8 ft. high, will extend to 12 $\frac{1}{2}$ ft.	8.80
16.	Stands 10 ft. high, will extend to 15 ft.	12.65

EXTENSION TRESTLES

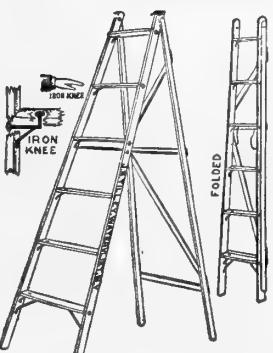


AUTO-MAT-IC LOCK-ING DEVICE.

No rods to take out, no thumb nut to adjust. One set of these Trestles will take the place of four sets of ordinary Trestles.

6 ft. will extend to about	9 ft.	\$9.25
7 ft. will extend to about	11 ft.	10.30
8 ft. will extend to about	13 ft.	11.38
9 ft. will extend to about	15 ft.	13.42
10 ft. will extend to about	17 ft.	15.50
12 ft. will extend to about	21 ft.	20.70
14 ft. will extend to about	25 ft.	26.78

Decorators' Ladders



4-Step... \$2.00 8-Step... \$4.00
6-Step... 3.00 10-Step... 4.75

These ladders are stiff, strong and well built. Have improved patent spring locks attached to traveling sections, and are automatic in action. These locks are fastened securely to the inner sides of upper section, and made of the best malleable iron. They are also provided with a durable spring, which keeps the hook thrown forward and grasps each round of the stationary ladder as the traveling ladder passes upward. A tripper forces the hook back, allowing it to pass the rounds when descending.

PRICES.

24 ft., 2-12 ft. sec., extends 21 ft.	\$10.25
26 ft., 2-13 ft. sec., extends 23 ft.	\$11.00
28 ft., 2-14 ft. sec., extends 25 ft.	\$12.10
30 ft., 2-16 ft. sec., extends 29 ft.	\$14.00
36 ft., 2-18 ft. sec., extends 33 ft.	\$15.70
40 ft., 2-20 ft. sec., extends 36 ft.	\$20.35
44 ft.	23.10
48 ft.	27.50

Other Lengths Given on Application.

Windlass Ladders can be furnished if desired.

PRICES ON APPLICATION.

Tilley Liberty Extension Spread Bottom Ladder or with Parallel Sides.

PRICES.

24 ft. extends 21 ft.	\$9.35
26 ft. extends 23 ft.	9.90
28 ft. extends 25 ft.	10.75
32 ft. extends 29 ft.	12.10
36 ft. extends 33 ft.	13.50
40 ft. extends 36 ft.	16.60
44 ft. extends 40 ft.	19.00
48 ft. extends 44 ft.	20.35

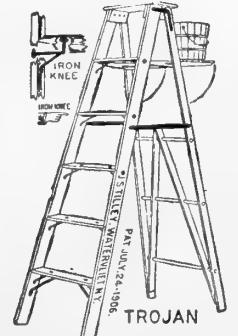
TILLEY ELECTRICIANS' STEP LADDER.

Constructed as shown in cut above. Strictly first class in every respect. A Combination Step Ladder and Trestle. Just the ladder for Electricians, Painters, Plumbers and mill work. A combination knee, tie and regular brace (as shown in detached cut) under each end of each step, which passes down through the step out through the sides and riveted at both ends, forms a positive tie support and angular brace.



6-Step.... \$4.30
8-Step.... 5.90
10-Step.... 7.15
12-Step.... 8.58

14-Step.... \$11.10
16-Step.... 12.70
18-Step.... 17.15
20-Step.... 19.00

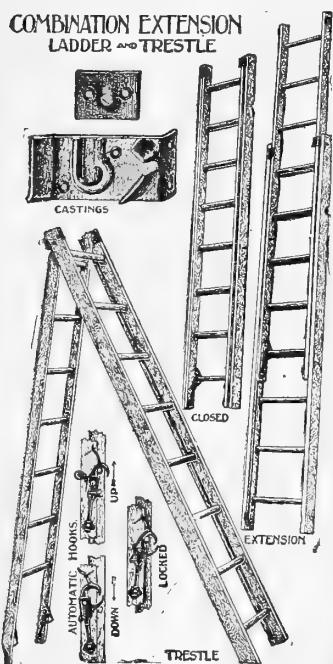


Tilley Trojan Step Ladder

Light, strong and stiff. Iron knees under ends of each step. These knees pass entirely through the steps and side bars, holding ladders firmly together and insuring a strong brace to the steps. Pail rests on all sizes of 5 feet and over. Furnished in 6, 7, 8, 10 and 12-foot lengths.

Price, 55c. per foot.

COMBINATION EXTENSION LADDER AND TRESTLE

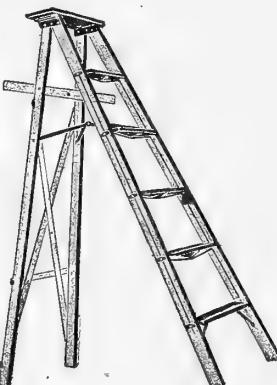


GRITCO COMBINATION EXTENSION LADDER AND TRESSLE

This is a first-class ladder, with rope and pulley attachment above 18 feet. Has automatic Hooks, and can be used as an Extension Ladder, or can be converted into a Trestle, which also serves as a Stepladder. Can be taken apart. Always made in equal sections; 12 to 28 feet. Price, per foot, 38c.

Above 24-ft. we prefer the Rope and Pulley Extension.

GRITCO "SECURITY" STEP LADDER WITH ALL-STEEL LOCK



Made from strictly clear seasoned wood. Extra wide steps and top. Has very strong, full-looped, galvanized steel hinge or ear, with right angle flange to which top is riveted. Every step is rodded and trussed, so that it is constantly being drawn together when there is weight upon the steps; cannot get rickety. Braces are all-steel bound; secure in every point. 4 to 10 ft., per ft., 55c. 12 to 16 ft., extra heavy, per ft., 65c.

GRITCO PULLEY EXTENSION LADDER

There is not a finer ladder on the market.

White spruce sides; 1½-inch straight, air-dried First-Class Hickory rounds.

Spread at base; 6 to 10 inches more than regular width of ladder.

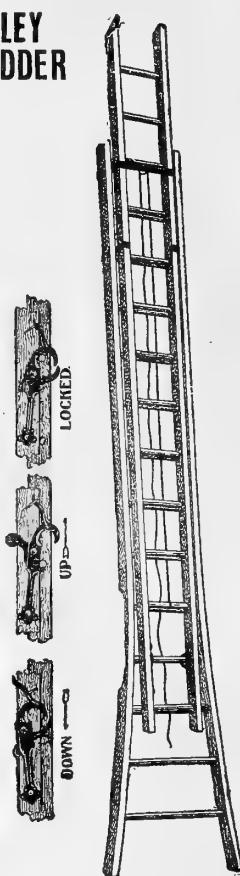
Has Automatic Hooks and is operated by the rope. It can be easily and quickly taken apart and put together.

26 to 30 ft., per ft., 38c.

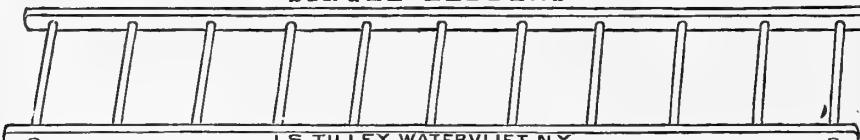
32 to 40 ft., per ft., 40c.

42 and 44 ft., 48c.

Allow 2 feet for lap on ladders 32 feet and under, and 3 feet on ladders over 32 feet.



SINGLE LADDERS



J.S. TILLEY, WATERVLIET, N.Y.

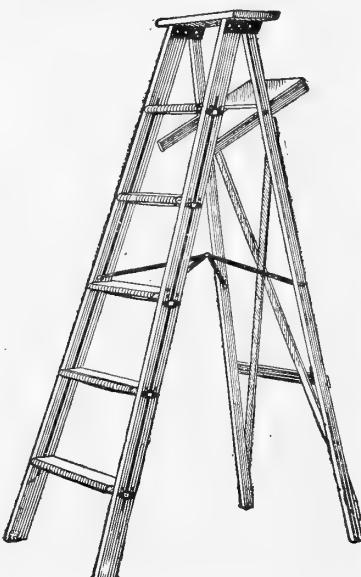
Made of spruce, with hand-shaved oak rounds; first class in every particular. Price, 12, 14, 16, 18 feet, 30c. per foot. Ladders over 18 ft., 3c. per foot extra. Also have a cheaper ladder, 2c. per foot less than above prices.

Masons' or Bricklayers' Heavy Parallel Sides Straight Ladders, 18 to 24 ft., 48c. per ft.

TILLEY UMPIRE STEP LADDER.



GRITCO WINNER STEP LADDER



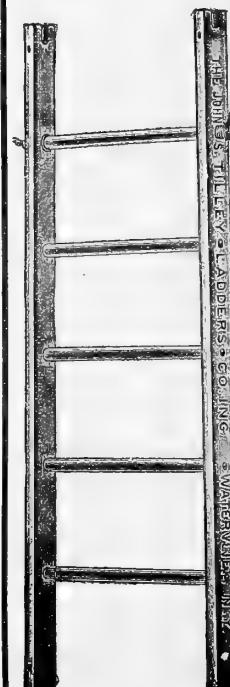
A light, strong, well-made ladder braced under each step with strips which support the steps, tie the sides together and stiffen the entire ladder. Best ladder made for the money. Sizes, 4, 5, 6, 7, 8, 10 and 12 steps, 48c. per step.

An excellent ladder at a low cost. This ladder will last a long time. It is strong, stiff and durable. Has solid board shelf. Sizes, 4, 5, 6, 7, 8, 10 steps, 45c. per step. 12 steps, 52c. per step.

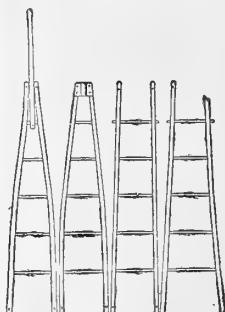
TILLEY IMPROVED SECTIONAL LADDERS.

Sections 6 feet 5 inches long. Either plate and pin lock or lock nut fastening.

Per Section, \$2.75.



WINDOW CLEANERS' AND FRUIT PICKERS' LADDERS



Nos. 4, 3, 2, 1.

No. 1—Bottom or floor section.

No. 2—Regular or middle section.

No. 3—Top window cleaners' section.

No. 4—Top fruit pickers' section.

Price, any section, per section, \$2.75.

THE WINANS LADDER JACK

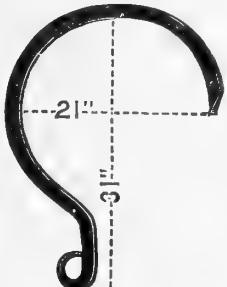


View Showing Jacks on Inside of Ladder

The Winans Ladder Jack is absolutely the strongest and best made: all other ladder Jacks are only as strong as the weakest rung of the ladder. Attaching these Jack's on the standard of the ladder instead of the rungs, gives it much greater strength. It can be raised or lowered to any desired height or angle, or reversed to either the outside or under side of the ladder in a minute's time without removing the plank or scaffold from the Jack. They are self-locking and adjust themselves to any standard make of ladder. Being made of "Best Grade" $1\frac{1}{2} \times 1\frac{1}{2}$ angle steel we guarantee them to support one thousand pounds; yet weigh but $4\frac{1}{2}$ pounds each, and can be folded into a small compass for convenient carrying.

\$5.00 a Pair.

ROOF and GUTTER HOOKS



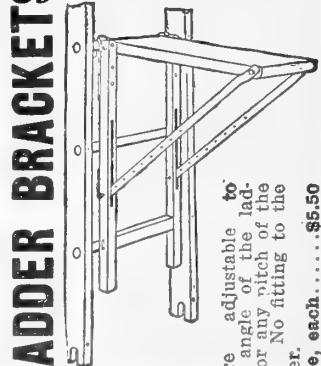
For Hanging Swing Stages or can be used for many other purposes, strong and durable.

Price, per pair... \$7.15

TILLEY LADDER HOOK

This old reliable and well-known ladder hook needs very little explanation. The cut explains all its merits and utility for a roof ladder. It can be quickly attached or detached. Price, \$1.75 each.

LADDER BRACKETS



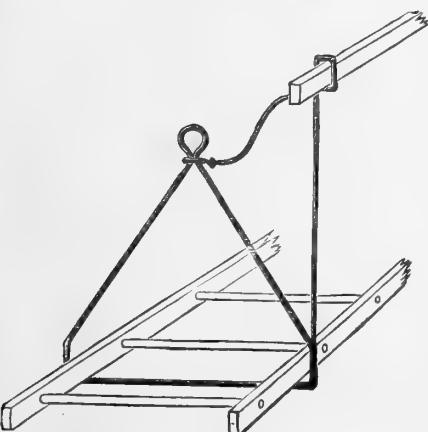
Are adjustable to any angle of the ladder or any pitch of the roof. No fitting to the ladder. Price, each.... \$5.50

"A"-SHAPED TRESTLES

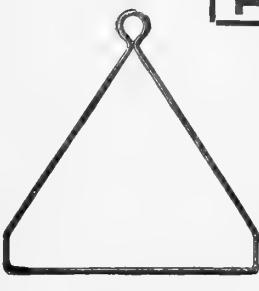
STRONG AND LIGHT.

Made in All Sizes, From 6 Feet to 12 Feet.

- 2 6-ft. Trestles.... \$9.50
- 2 8-ft. Trestles.... 12.65
- 2 10-ft. Trestles.... 15.85
- 2 12-ft. Trestles.... 19.05



TRIANGLE FOR GUARD RAIL



TRIANGLE

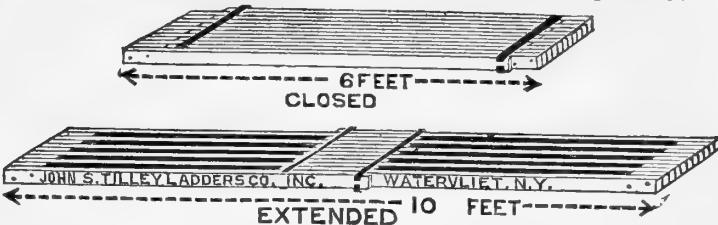
WINDOW BRACKET OR PAINTERS CRIPPLE



Strong, folds up closely; weight, 24 pounds. Made of best material. Safe, and can be quickly adjusted to any window.

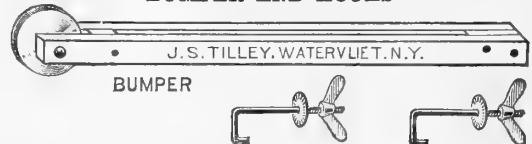
Regular Size, 4 ft. 4-in. board, \$8.80
Extra Size, 6-ft. board, \$10.25 each.

TELESCOPING EXTENSION PLANK



Joints near the bearing points making a stiff plank.
6 feet extends to 10 feet.... \$5.50
8 feet extends to 14 feet.... \$7.75

BUMPER AND HOOKS



The cut above shows one Bumper and two Hooks. It requires two bumpers and four complete Hooks, Nuts and Washers for each set to be used on swing stage ladders. Bumpers, pair, with 4 Hooks..... \$4.00

SWING STAGE LADDERS



are made from selected stock and rodded with iron rods with or without flooring.

Swing Stage Ladders
18-20-22-24-foot without Floor... 49c. per foot.
With Floor... 79c. per foot.

THE OVERLAND COASTER WAGON

SPECIFICATIONS



BODY—Clear, selected hardwood, natural finish, trimmed in red and stenciled in black and green.

GEAR—Channel arch truss steel construction, enameled black.

FIFTEEN WHEEL—Extra large, made of steel.

AXLES—One-half inch round steel, firmly braced front and rear.

WHEEL—Heavy iron hub, into which straight, smooth, kiln-dried hardwood spokes are driven. Felloes and tires of heavy steel electrically welded, with edges curled in to hold the ends of the spokes.

BEARINGS—Each wheel fitted with eleven cold rolled steel bearings, held in place by a special washer that does not wear cotter pin.

TONGUE—Hard, straight maple, which bends back and allows wagon to be steered from the box.

Brake—Malleable iron.

Furnished in the following sizes:

No.	Size Bottom (inches)	Wheels (inches)	Weight, lbs. Per Doz.	Price
0A	12 x 28	8	290	\$6.00
1A	14 x 32	8	305	7.00
2A	14 x 34	11	390	7.75
2½ A	15 ¼ x 36	11	415	8.25
3A	16 x 33	11	450	8.75
4A	18 x 40	11	500	9.75

Each wagon is packed complete in a separate sealed carton with gears and wheels inside of the box.

THE COASTER WAGON THAT LASTS FOR YEARS AND ALWAYS RUNS SMOOTH



The Springfield Tire Pump

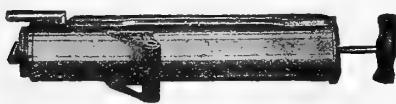
Single Acting Long Barrel

This pump is nearly twice the length of the ordinary double or triple acting pumps. We can, therefore, safely guarantee it to deliver as much air to the single stroke, and besides, the operator stands erect and eliminates the tiresome "up pull" which is characteristic of the compound pumps.

Heavy brass valve connection, machined to fit any standard valve stem, malleable iron cap, long rod bearing, five-ply air hose. Test 200 pounds. Length over all 30 inches. Ball air checks and swivel stirrup.

PRICE \$3.00

DUSTER BROWN DUSTER



This Duster is made to handle insecticides where you desire to use them in powdered form. Nicely made and finished.

PRICE \$2.00

THE CAPITOL HOG OILER

SIMPLE IN CONSTRUCTION



Made of Cast Iron—
Weighs 45 Pounds.

You may see by the picture that the **Capitol Hog Oiling Machine** is very simple and that there is no possible chance for waste of oil nor is there any chance for dirt to interfere with the working principles of this machine. You will notice there are three rubbing bars making it possible for two or three hogs to rub on the Oiler at the same time.

As soon as the hog starts to rub on the bar this will open the feed allowing the oil to run down the bar placing oil on the infected part. The bars are held firmly in place by guides and the opening which gauges the feed is governed by a spring, which prevents all possible chance for waste of oil.

There is nothing to break or get out of order. This machine will last a life time.

DON'T TAKE CHANCES

For years the successful hog raisers have been looking for an Oiler that would work perfectly. There have been a large number of Hog Oilers placed on the market, each and every one has its merits, while at the same time there are with a great many of them a host of disadvantages which the manufacturers cannot avoid.

In considering the advisability of purchasing the **CAPITOL HOG OILER** we want you to feel perfectly satisfied before placing your order that you are giving your patronage with the right concern, and that you may confidently expect in return the best of service and that you are buying an article that is thoroughly reliable, and sure to meet your expectations in every detail. If you desire any further information we respectfully solicit your inquiry for such and your request shall have our immediate attention.

PRICE OF HOG OILER COMPLETE \$12.00

SPECIAL OIL FOR HOG OILERS

5-Gallon Cans.....	\$4.50
10-Gallon Cans.....	8.00
Bbls., 50 Gallons, per Gallon.....	.50

ALL PRICES IN CATALOG SUBJECT TO CHANGE WITHOUT NOTICE.

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FERTILIZERS FOR THE FARM LAWN and GARDEN

On account of the unsettled conditions of the market on certain chemicals that go to make up fertilizers, we are unable to give prices that would likely be maintained for any length of time. We have therefore left out prices, but would be pleased to quote you on your requirements. Kindly write for prices.

The application of Fertilizers has been a topic much discussed among farmers generally. The quality and requirements of the soil are so varied, some lands being deficient in Potash, Phosphoric Acid or some other chemical ingredient, that it is frequently very difficult for the farmer to determine just what mixture he needs. We give below a line of fertilizers best adapted to the various soils and crops.

Ammoniated Alkaline Plant Food

Our old stand-by for summer crops; is used largely on Potatoes, Corn, Tobacco and other summer crops, stands the hot, dry weather particularly well.

Price Per Bag.

Price Per Ton.

Write for prices.

Ammoniated Butchers' Bone Phosphate

Is made largely from slaughter-house stock; used principally for Wheat and Grass, as well as by growers of Corn and Tomatoes for canning purposes. A good article at a low price.

Price Per Bag.

Price Per Ton.

Write for prices.

Animal Bone Phosphate

Made from Animal Bone, Potash and Ammonium in proper proportion. A complete manure always gives good results. Specially adapted to the growth of Peas, Cabbage, Wheat and Grass. It contains the ingredients necessary to supply what may be lacking in the soil for almost any crop.

Price Per Bag.

Price Per Ton.

Write for prices.

Sheep Manure

This is purely a natural and most nutritious plant food, clean to handle, and its effect is immediate and lasting. There is nothing better to mix with soil for potting plants. Florists who use it extensively advise mixing about one-seventh manure and six-sevenths soil. As a top dressing for lawns it is unequalled.

5 lbs. 30c. 10 lbs. 50c. 25 lbs. \$1.00

50 lbs. \$1.75. 100 lbs. \$2.75

Special prices in tons, $\frac{1}{2}$ tons or carload.

Soft Ground Bone

Made from softer material than the regular "Ground Bone," and contains some little meat and blood. The great objection to the use of Pure Bone (the price) no longer prevents its use by any one wanting to restore worn-out land. Try it and be convinced.

PRICES

5-lb. package, 35c. 10-lb. package, 60c.

Price Per Bag.

Price Per Ton.

Write for prices.

Special Raw Bone Meal

Made especially for Florists and Gardeners. Is exceedingly fine, and in addition to this, it is the Pure Bone, containing no foreign matter at all. Write for sample.

Price Per Bag.

Price Per Ton.

Write for prices.

Special Potato Fertilizer

Made especially for potatoes, running high in Potash and containing Ammonia and Available Phosphoric Acid in proper proportion for good results on this crop.

Price Per Bag.

Price Per Ton.

Write for prices.

Hardwood Ashes

Unleached

Most excellent for lawn dressing or orchards. Apply late in the fall or early spring, in order that the rains may leach the ashes and carry the elements down to the roots of the trees or grass. The ashes are in proper condition for immediate use. Apply at a rate of 1000 to 1500 pounds per acre.

Price, 100 pounds,

Barrel.

Hydrated Lime—For Improving the Soil

Hydrated Lime is a soil sweetener and is free from injurious qualities. It is cheaper than any other lime product which can claim to be at all competitive, and is more easily handled.

There has been an enormous increase in its use in recent years, keeping pace with the growing of clover and alfalfa.

Hydrated Lime, while an indirect plant food, is as essential to the maximum production of some crops as is direct plant food. In addition to producing chemical changes Hydrated Lime also has mechanical effects, making clay soils more friable and more open to both air and water and so less susceptible to extreme dry and wet weather. In sandy soil the action is practically reverse; Lime in such soil has a cementing tendency and helps the soil to retain moisture.

We recommend the free use of Hydrated Lime on lawns.

Per Bag of 50 Pounds.....\$.75

Per Bag of 100 Pounds.....1.50

Per Ton in Paper Bags.....18.00

Per Ton in Cotton Bags.....21.00

Write for prices in larger lots. Special inducements offered for car lots in bags.

Blood, Bone and Potash Mixture

Special High-grade Trucking Fertilizer. Extensively used by the leading truckers of Baltimore and Anne Arundel Counties with great success.

Price Per Bag.

Price Per Ton.

Write for prices.

Tobacco Bed Fertilizer

This brand is specially well adapted for use on tobacco beds, containing 10 per cent. of Ammonia and a good percentage of Potash and Phosphoric Acid. A most excellent substitute for Peruvian Guano. In bags, 167 lbs.

Price Per Bag.

Price Per Ton.

Write for prices.

Land Plaster

In bags, 200 lbs. each.
per bag. per ton.

Fine Ground Fish

Ground Tankage

High Grade Acid

Phosphate

Kanit, Muriate of Potash

Nitrate of Soda

Sulphate of Ammonia

Peruvian Guano

PRICES ON APPLICATION

For those that need only a small quantity of Fertilizer we put up the following brands in small packages.

GROUND BONE

5-pound Packages.....	\$.35
10-pound Packages.....	.60
50-pound Packages.....	2.25
100-pound Packages.....	4.00

PLANT FOOD

5-pound Packages.....	\$.30
10-pound Packages.....	.50
50-pound Packages.....	1.75
100-pound Packages.....	3.00

SHEEP MANURE

5-pound Packages.....	\$.30
10-pound Packages.....	.50

NITRATE OF SODA

5-pound Packages.....	\$.50
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GRIFFITH & TURNER CO.

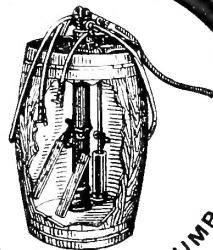
FARM AND GARDEN SUPPLIES

"GRITCO" RUNNER
AND
WHEEL



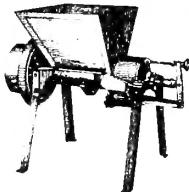
HARROWS

"POMONA" SPRAY PUMP

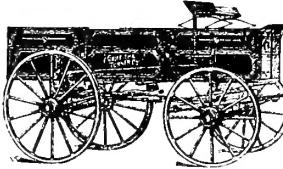


WATER CART

SCIENTIFIC MILLS
NOS. 20 AND 30

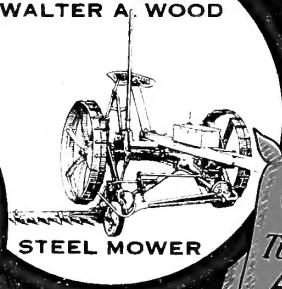


GRAFFITH & TURNER
STUDEBAKER
AND
BROWN



GENUINE OLIVER
CHILLED PLOW

WALTER A. WOOD

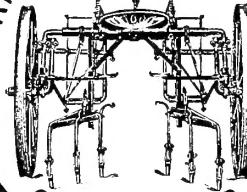


BLATCHFORD'S
Calf Meal
The Milk Substitute
GRAFFITH & TURNER CO.
GENERAL AGENTS
BALTIMORE, MD

CUTAWAY
CLARK
HARROWS



RIDING AND WALKING
CULTIVATORS



GRAFFITH
AND
TURNER CO.'S
ANIMAL
BONE
PHOSPHATE

LEMON OIL CO'S. INSECTICIDE

IS RECOMMENDED AND IN USE BY THE LEADING SEEDSMEN AND FLORISTS.